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On Our Cover: Captain Miller (Laurence Fishburne), skipper of the salvage vessel Lewis & Clark, makes his way through a dark passageway aboard the Event Horizon, an abandoned spacecraft which exudes an evil aura. The name of the latter craft is also the title of the new scifi/horror film, directed by Paul Anderson and photographed by Adrian Biddle, BSC. (Photo by Tom Collins, courtesy of Paramount Pictures.)

#### **Contributing Authors:**

Brooke Comer Mark Dillon John Gainsborough Chris Pizzello Brandon Wilson



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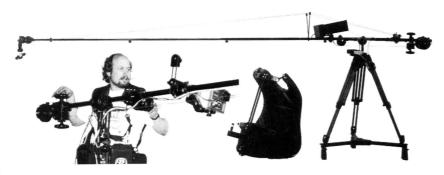
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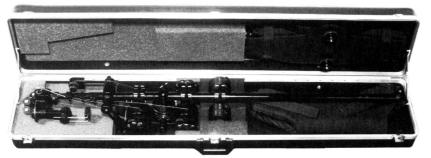
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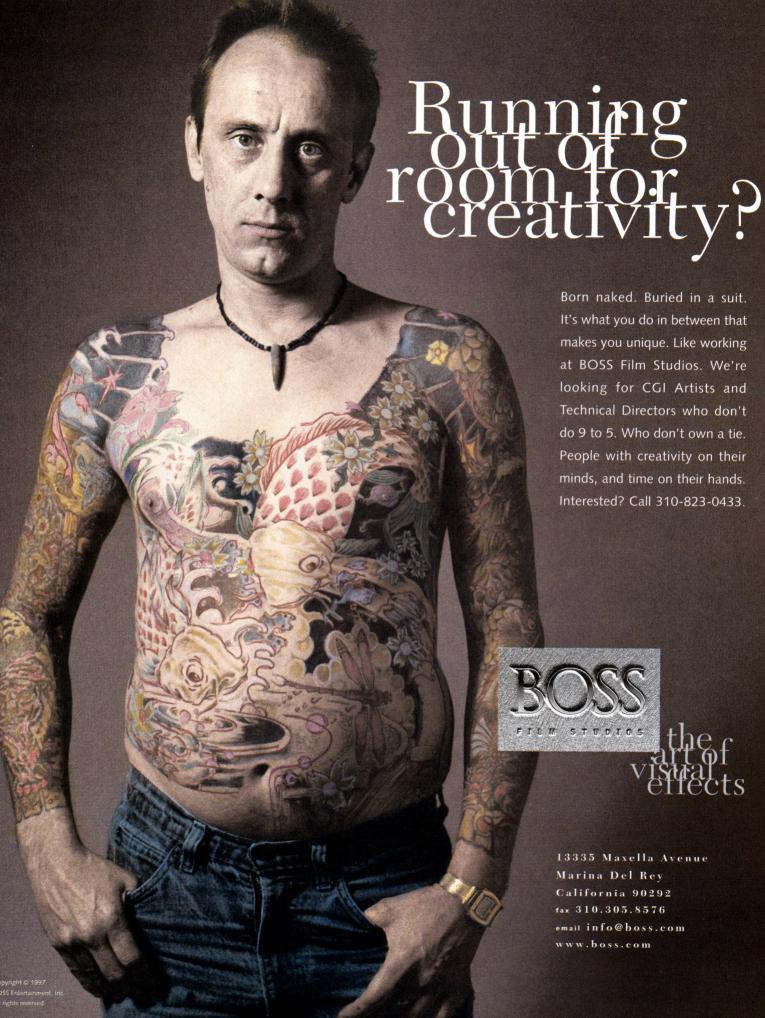
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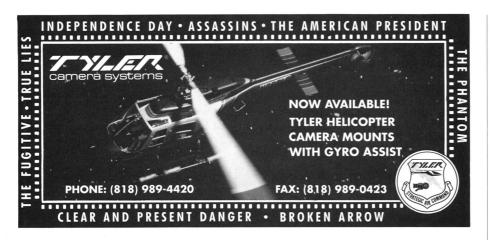
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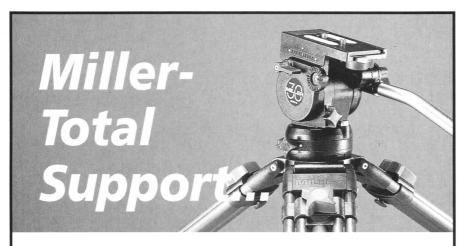
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The way instrumentation cameras are used, there's never an optical printer involved. But for *your* purposes, there often is. For perfect print steadiness, your camera's movement should be closely compatible with the printer's movement.

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For example: instrumentation cameras can be built with as many registration-pins as the designer wants. (Some have eight.) But *your* camera should have the same number as the optical printer (two); and those pins should act on the same perfs (relative to the frame) as the printer's pins. The W12 has the same number of pins and they act on the same perfs. And, like the printer's, the W12's pins are full size.

#### Vacuum gate, film clip holder

In the gate, the W12 pressure-plate uses a vacuum back, for best possible film flatness. There's a registered clip holder at the groundglass. The shutter is fixed: 120 degrees. The mirror spins at up to 9,000 rpm, so it's made of Berylium—stronger and lighter (and more expensive) than glass.

#### Gentle takeup

With this camera, you don't have to take up film slack by hand. When you throw the Power On switch, after threading film, the W12's torque motors slowly take up the slack. The camera then goes into Standby mode and waits. When you throw the Run/Stop switch, the camera accelerates steadily to the set speed. 0 to 300 fps takes between 2 and  $2^{1/2}$  seconds. 0 to 150 takes half that.

#### **Even wrap**

Once at the selected speed, sensor arms maintain even tension in the feed and takeup rolls as they change size. Regardless of speed, the wrap at the core is the same as the wrap at the outer edge. *No cinching.* Only a torque motor can provide this smooth a takeup.

#### Stops in about 16 feet

At the end of the roll, infrared sensors signal the camera to stop instantly. Mid-roll stops: from 300 fps, the W12 stops in about 16 feet. It also gets from 0 to 300 fps in around 16 feet. Consistent control; and *no wasted film*.

#### **Magazines**

All W12 magazines are identical 1000 footers, gear-driven by

motors inside the camera body. Feed and takeup magazines are separate. You mount *two* on the camera body—a full one for feed, an empty one for takeup.

#### Choice of lenses

The W12's mirror takes up more space than standard mirrors. Nevertheless, there's a generous choice of lenses. You can use our 14mm Zeiss T2 and our six Zeiss T1.3 Superspeeds from 18 to 85mm (including the new T1.3 65mm). Among our spherical and anamorphic zooms, eighteen different types will work. In telephotos: twenty-two different types, from 150 to 1600mm.

#### PL mount advantages

You can color-match your W12 footage with your 535, Moviecam or 35BL footage. And you can save money by not having to rent a separate set of lenses.

#### System accessories

The W12 works with the ARRI mattebox and follow-focus. You can mount all the effects filters you're used to mounting on the ARRI 3. If you're also shooting with one of our sync-sound cameras, you can use the same accessory system you've rented for that camera.



the camera body door. There's a knob with two eyepiece image modes: normal and ten times magnified. The viewfinder rotates through 270 degrees and the image stays upright.

#### 29,600 speeds, all crystal controlled

You enter the speed you want on the camera's electronic control panel. The digital readout displays your choice, to two decimal places—hundredths of a frame. (Between 4 and 300 fps, you therefore have 29,600 speeds to choose from!) All with the perfect accuracy of crystal control; no problem with HMIs.

#### Variable speed

When you change speed during the shot, the transition is smooth.

Using the Speed Aperture Computer, you can change from any speed to any other speed between 4 and 300 fps, in tenths-of-a-frame increments. The starting and ending speeds are crystal-controlled. And, of course, the lens iris is changed to keep exposure consistent.

#### Strobes, Remote and Interlock

Accessory connection is via the 19 pin Galloway Group Interface. With an accessory box, you can make precise frame counts, for

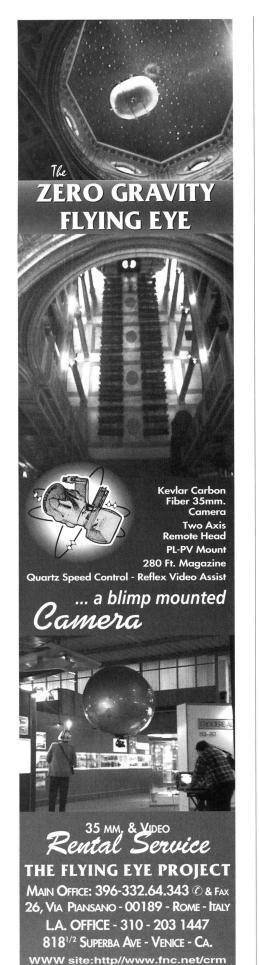
rewinding or whatever. There's a line sync box for interlock with other cameras and for rear projection. And there's a strobe output on the camera body, with settings for one or two pulses for each pulldown/exposure cycle. There's also quartz-locked remote control.

#### Doesn't brew coffee

There are a few things this camera *won't* do: It doesn't run in reverse; you can't shoot time-lapse, single-frame or time-exposure with it. And without a lens or film but with two magazines, it weighs 77 pounds; so you almost certainly won't want to hand-hold it.

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#### Letters

#### The Price Isn't Right

We would like to bring to your attention a mistake in the May article entitled "Domino Lends Impressionistic Edge to Donnie Brasco" [Production Slate, p. 22]. In the second paragraph, there is a description of how the main titles were constructed using photograph elements and layering. This is followed by the phrase, "all for a mere \$3,000." Unfortunately, this is a slip on our part; we should have informed your reporter that the process was completed at 3,000 lines of resolution. No mention of price was meant to be assigned to this process, and the dollar amount mentioned has absolutely no relevance.

> Dan Spelling Spelling Communications Los Angeles, CA

#### The Speed of Sound

I enjoyed Eric Rudolph's article on the shooting of the Imax film *Super Speedway* [see Prod Slate, *AC* June '97]. However, there is one glaring error that is repeated several times: the cars themselves are not Formula One cars, but PPG CART cars (formerly known as Indy cars). I will skip the racing politics about the name change, but teams in both camps would take offense.

Regarding the film's sound, it would have been nice to mention the name of the mixer, Cory Mandel, who was anonymously credited with notching out the camera noise.

Having recorded and mixed the music for one Imax film back in the Seventies, I was later asked to do the location recording for another in a loud country music watering-hole in Toronto, Canada. They said they had two cameras, but only one was blimped. I said "No problem," but then I heard the camera: it sounded like a .50-caliber machine gun. Hauling 5.6 feet of film a second through a camera is not easy; Graham Ferguson, one of the founders of Imax,

joked at the time that it was the only camera where the footage counter read out directly in dollars.

I would like to see further articles on sound in  $A\mathcal{C}$ , as the technology is changing daily.

— Chris Skene email: Chris\_Skene@tvo.org.

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#### **Next Month in AC:**

#### The Game

Director: David Fincher Cinematographer: Harris Savides

#### The Peacemaker

Director: Mimi Leder Cinematographer: Dietrich Lohmann

#### Cop Land

Director: James Mangold Cinematographer: Eric Edwards

#### Kiss the Girls

Director: Gary Fleder
Cinematographer:
Aaron Schneider

Aaron Schneide

#### La Belle et le Bête (Beauty and the Beast)

Director: Jean Cocteau Cinematographer: Henri Alekan

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- E-mail cinematography questions to Stephen Goldblatt, ASC about his latest film, Batman and Robin
- Flip through an extended sequence of storyboards from The Lost World
- Read the webexclusive article on
  the attention-getting
  Sundance film Star
  Maps (featuring
  interviews with
  director Miguel Arteta
  and cinematographer
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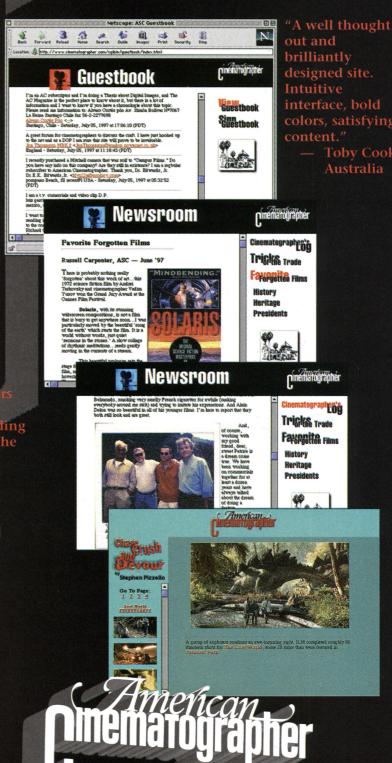
Peek inside cinematographer Steven Poster's mind as he continues to chronicle the shoot of *Un Chance Sur Deux (Even Money)* with director Patrice Leconte (Ridicule)

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#### Digital Perspectives

The nation's television networks are currently fine-tuning the details for the launch of digital television broadcasting in the fall of 1998. CBS was the first of the television networks to outline its plans for some of the key issues in the transition

The Westinghouse-owned network is now broadcasting an experimental HDTV signal from atop the Empire State Building in New York City, but has rejected a computer industry proposal for a progressive scan format amenable to both large-screen TV displays and personal computers.

Instead, CBS will define its own vision of the digital television future — a home theater approach that emphasizes a single channel of big, high-resolution pictures and compelling surround sound.

"The television viewing experience is different from interacting with a computer," says Jay Fine, CBS' senior vice president of East Coast operations. "There's not a lot of interaction with the TV except for the guy sitting there with the channel changer. Computing, on the other hand, is a one-on-one, close-to-themonitor experience. We are betting that people will want to watch TV but interact with their computer."

CBS intends to offer its affiliates a single channel of programming using the 1080-line, 1920 pixel-per-line, 60 field-per-second format in a 16:9 aspect ratio. Interlaced scanning will be used for video-originated material and progressive scanning for film-based programming. Home viewers will be able to view CBS programming only in the 1080-line interlaced mode. Computer displays that function solely in a progressive-scan mode will be unable to receive the broadcasts without conversion.

Film is being progressively scanned and broadcast at 24 frames per second in order to save bandwidth and allow for more supplemental data transmission, says Robert Seidel, CBS engineering vice president for advanced technology. However, when the TV receiver is used in the home, its images will be converted to interlace.

According to Seidel, the reason for the receiver interlace conversion is the reduction of flicker. "At 24 frames per second, you will see some flicker if you are in a bright room," he explains. "A lot of manufacturers we've talked to

#### **CBS** Does HDTV

#### by Frank Beacham

have said that they will convert it back to interlace. It will look as good as if it were done in the progressive mode. There is very little difference between the two at these high resolutions."

Although CBS is constructing its network infrastructure based upon the 1080 interlaced system, the station's eventual goal is to broadcast a 1080 progressive signal. "If we can do 1080 progressive down the road, we'd like to," says Fine. "We estimate that it will probably be five years before somebody figures out a way to squeeze 1080 progressive through a six-megahertz channel."

In their first experimental broadcasts, CBS supplemented HD pictures and sound with what they termed "opportunistic data." Such data could contain stock market reports, news, information, program guides, sports statistics and Internet content. During a demo in May, CBS transmitted a Kodak commercial in HD while simultaneously delivering electronic editions of the New York Times, Wall Street Journal and Washington Post.

However, beyond showing that data broadcasting is an "opportunity," CBS offered no insight on how viewers might access and use the data transmitted over the network. According to Fine, data storage and access "might be a value-added piece on the TV, or it may come from the computer manufacturers. We don't know, because we don't know what the application is going to be."

CBS also rejected the widely supported notion of using DTV for the distribution of several channels of stan-

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dard-definition programming. "There are a lot of logistical problems and business issues related to multi-channel," says Fine. "How do you label the other channels? Is it Channel 33A, B, C, D and F? What do you put on those channels? You're going to have to pay for program services, and you're going to have to have additional production. We think the

"Producers have to realize that if they want to protect their long-term asset values for syndicating these [televison] programs in high definition, both domestically and internationally, they should consider 35mm film."

most simple, cost-effective thing to do is to build a pipeline of high-quality pictures and then figure out what the business opportunities are for the opportunistic data."

What might not be so simple are the production issues surrounding the transition from NTSC (which at best has about 480 usable lines of resolution) to 1080-line high-definition pictures. When CBS broadcast a sampling of its programming in HDTV, the differences in image quality between programs was strikingly apparent.

Video-based programs such as The Late Show with David Letterman were clearly enhanced by widescreen HD. The addition of surround sound was especially notable, and gave the house band's music a far more compelling sound. However, CBS's hit drama Touched by an Angel, which was shot on 16mm film, appeared soft and grainy when broadcast in HD. Furthermore, in what may be an ominous sign for smaller broadcasters, the up-conversion to HD of conventional video — a local newscast, in this case — did not meet the standards of the HD commercial breaks interspersed through it.

CBS executives also noted that the revenue streams of prime-time program producers will be impacted by

HDTV. Referring to tests shown at NAB '97 that illustrate the differences between the image quality of HD video, 35mm, Super 16 and 16mm film, CBS strongly advocates that all prime-time programming be shot on either 35mm film or 1080l video for HD broadcast.

The network offered its own proof in Touched by an Angel, which recently switched from 16mm to the Super 16 format. The producers of this and other prime-time programs now shot on Super 16 or 16mm will find their programs visually limited when HD broadcasting begins. Seidel explains, "Producers have to realize that if they want to protect their long-term asset values for syndicating these programs in high definition, both domestically and internationally, they should consider 35mm film. The cost of the average [one-hour] production is about \$1.2 million total, and the cost difference between 16mm and 35mm film is about \$20,000. We feel that this is cheap insurance to make sure the syndicated product is ready for HDTV."

As for up-converting conventional NTSC programs for widescreen HD feeds, CBS has opted to line-double the video and place black side panels on either side of the 4:3 aspect ratio picture. This will be done so that, as Fine puts it, "our anchors don't gain tons of weight in the process." He adds that CBS will not "distort the [4:3] image geometrically by stretching it out to 16:9. It's not perfect, but we think it will suit the rest of the 21 hours a day of [non-prime-time programming]."

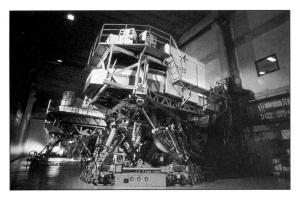
In addressing the picture quality of up-converted material, Fine takes an optimistic stance towards the news programming displayed in the demo. "Up-conversion looks OK when you use a lot of graphics," he observers, "but it begins to fall apart with a variety of shots and a lot of detail in a scene."

Down-conversion of HD material to NTSC will necessitate the reverse process — removing about half of the lines. "We will crop the sides of the image to prevent geometric distortion," Fine explains. "Camera operators will use a set of lines in the camera's viewfinder to ensure a safe action area for programs to be broadcast in the 4:3 aspect ratio. Most of the HD studio cameras have an NTSC output that is down-converted using this technique."



#### **Production Slate**

#### compiled by Andrew O. Thompson



Above: An exterior view of the motion simulator. Right: Film formats — ranging from 35mm all the way up to 15-perf 70mm — are illustrated and explained.



The Ultimate *Thrill Ride* by Lisa Sibert

People have long sought the extreme adrenaline rush that results from an intense experience. One such fright-fulfilling adventure is the thrill ride — from Ferris wheels and conventional wooden roller coasters to the more complex, modern steel-tube stomach-churners and computer-generated ride simulators. Thrill Ride: The Science of Fun, a 15-perf/70mm experience from ride filmmakers New Wave International, examines the rise of thrill rides as well as the technological advances that have made ride films and motion simulators possible. "The first part of the film focuses on roller coasters," explains director Ben Stassen. "We then get into motion-simulation technology, and the creation of an immersive entertainment called the 'ride film.' I thought it would be a great idea to create a documentary about an immersive form of entertainment *in* an immersive film format."

New Wave's initial step was to locate archival footage for use in the first section of Thrill Ride. Stassen contacted Robert Cartmell, a professor at SUNY Albany and a founding member of the American Coaster Enthusiasts, who has an extensive library of archival material — both film and still photographs — about roller coasters. After reviewing Cartmell's material, Stassen and his team selected just under two minutes of footage from the 1920s, which was later digitally scanned and re-composed to fit the Imax format. To avoid having to letterbox the historical footage, says producer Charlotte Huggins, "we had to change the framing, or add images to the top or the bottom or sides of the frame, depending on the original format. But then we could output them to full 15-perf/70mm." Most of the archival images were already at 4K resolution due to the re-formatting, so the task primarily involved up-rezzing and outputting them to 15-perf.

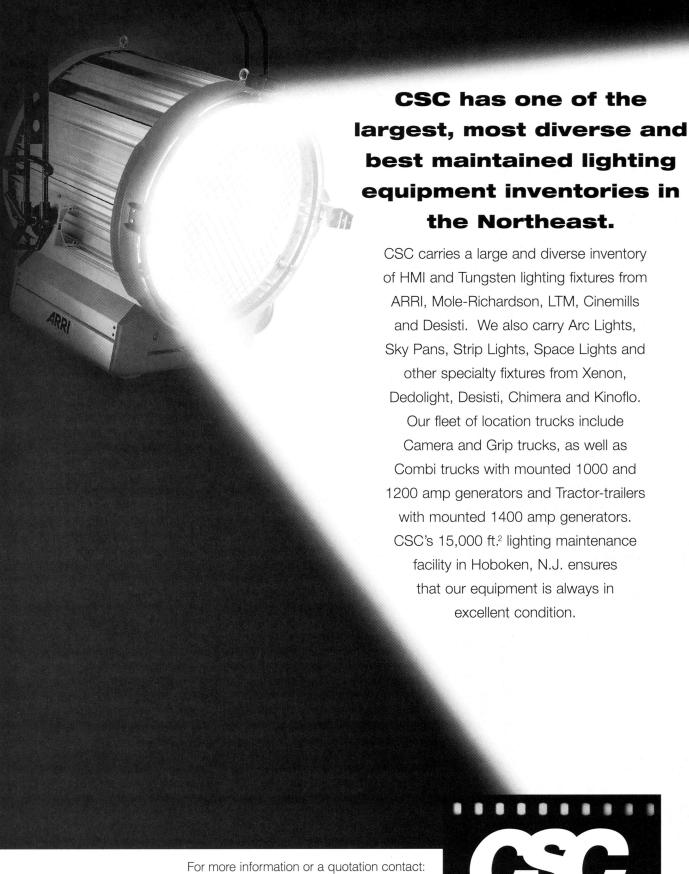
The project's next phase was locating roller coasters suitable for Imax filming. After flying around the world to experience various roller coasters. Stassen decided on two rides at Busch Gardens Tampa Bay (the Montu and the Kumba) as well as the Big Shot in Las Vegas — perched high atop the Stratosphere Hotel tower. The dilemma here was how to mount a 65mm camera on the coasters to capture full POV shots, while avoiding image disruption from strobing and shaking. Working with the engineering department at Busch Gardens, the production constructed specialized rigs for each coaster to ensure secure camera mounting.

Director of photography Sean Phillips, an Imax-format veteran, says *Thrill Ride* gave him the opportunity to capitalize upon his knowledge of nontraditional shooting environments. "When shooting large-format films," Phillips explains, "mounting the camera in unusual places is kind of stock-intrade. You want to put the viewer in circumstances that are very difficult for them to be in, so you generally go for the more exotic locations or the more unusual camera mountings."

Phillips was also excited to work with Marty Mueller's new lightweight Imax camera, the MSM 9801, which offered a feature that helped the filmmakers while they combated the coasters' immense G-forces. "The MSM camera has a moveable lens board to adjust the lens up and down," Phillips comments. "So we were able to [mount the camera securely] and then frame our compositions with the lens board, which just involved a slight internal adjustment within the camera." Thus, time did not have to be wasted remounting the camera for incidental framing changes.

Phillips went with a fisheye lens to achieve the widest possible view while filming from the roller coasters. "Our fisheye [in 65mm] was a 30mm Distacon Hasselblad lens that had been rebarrelled to have a chunkier, Imax-style mount," the cinematographer details. "Actually, it's a custom mount for the MSM cameras, so it will cover the format. It's the widest lens you can get, and for roller coasters we really wanted to see a lot of real estate because we were shooting everything in real time. We didn't want to cheat by undercranking, and we found that the fisheve gave us the most dramatic aesthetic effect on film."

For the daytime shots aboard the roller coasters, Phillips used Kodak's 5245 film stock. During filming of the Montu and the Kumba coasters early in the morning, the camera's reflective mount actually provided a pleasing bounce light, which filled in the actors enough to preclude use of additional sources. But filming the Big Shot at magic hour did necessitate some accent light. "We got about a half-dozen of



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these little tungsten work lights, which we used as practicals," Phillips reports. "I liked the warm light they had. We discreetly placed them on the ground and had just enough light to fill in the people in the foreground."

The second part of Thrill Ride deals with motion simulators and space technology. Imax films traditionally offer a mix of education and entertainment. To facilitate that approach, the filmmakers shot roughly half of the film in first-person POV; while the audience learns about the technology behind motion simulation, for example, they actually experience the feeling of being in a fighter jet's cockpit. "We have a sequence about commercial simulation," Huggins elaborates, "and instead of showing it to you, we let you sit in the cockpit of a commercial simulator and make a simulated landing into San Diego that transitions into a real landing. You get the sensation of what it's like to be in a simulator, and then what it's like to be in a real iet."

The filming of the simulators took place in Brussels. Phillips explains, "The camera mounting for the interior shots was fairly straightforward. We used either Fisher or Panther dollies, and those worked out just fine." In filming the cockpit of an F-16 fighter, the cinematographer used a Scorpio II three-axis remote head to perform a pullback from the cockpit interior — while panning, tilting and rolling the camera all at once. He also used the Scorpio in Germany while filming a demonstration of a centrifuge in Germany; due to the narrow amount of space between the edge of the centrifuge and the surrounding wall, a remote head was required to prevent the camera from being damaged when the centrifuge began spinning.

Most of the interior lighting for this section of the film was accomplished with Kino Flos and HMIs. On the centrifuge shoot, for instance, "we actually ended up just sitting the Kino Flos out in the room and designing a lighting pattern around the floor to make it look more interesting," says Phillips. "For the Germany shoot, we had probably 30 fourfoot Kinos, several Micro Flo kits, four or five 6K HMIs, a couple of 12K HMIs, and a few miscellaneous babies and juniors for accent lighting."

The third and final part of *Thrill Ride* deals with the application of flight-

simulation technology in creating the ride film. In the process of working on *Special Effects*, New Wave purchased an MSM multi-head film recorder capable of handling 5-, 8- and 15-perf 70mm. This piece of equipment came into special play for one fully-digital sequence in *Thrill Ride*.

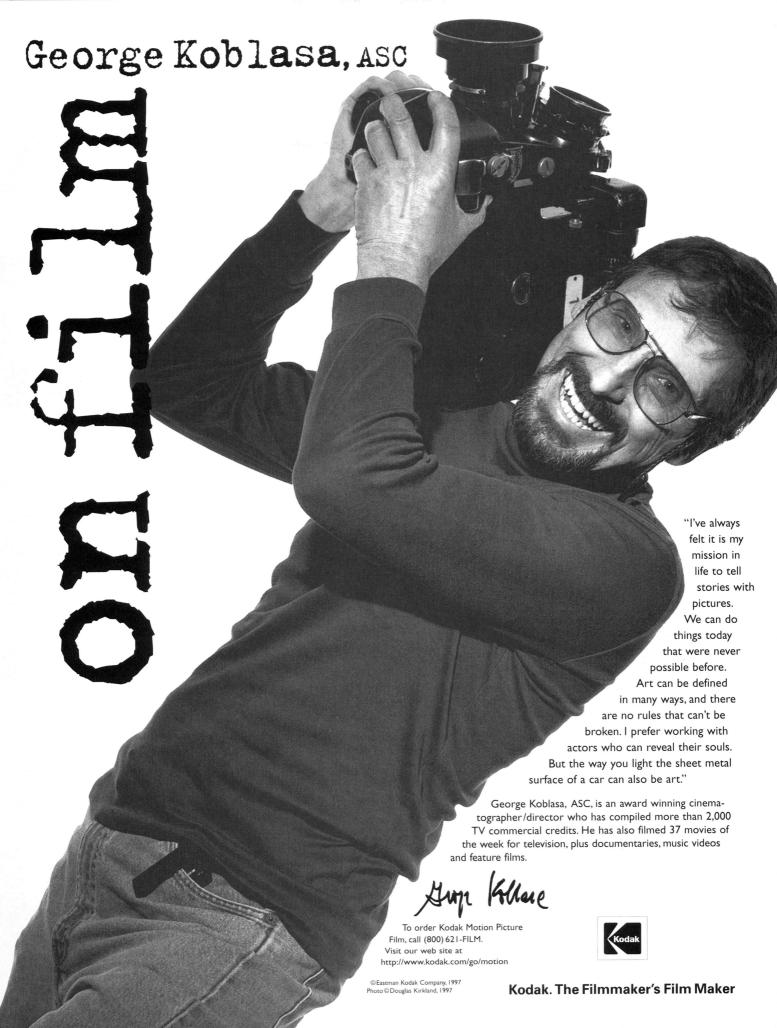
Using a Mamiya large-format RZ67 camera fitted with a Kodak digital back running directly to an SGI workstation for image downloading, the filmmakers shot about 2 ½ minutes' worth of footage (a motion-control move on a miniature train) for output via the MSM recorder. The RB67 was used due to the confined spaces involved. At the time these shots were made, digital filming at 24fps was a technological impossibility "because we couldn't download 24 frames in one second," explains Stassen. "One frame is about 22 megabytes of information, and it takes six or seven seconds to download each one. But the technology that will enable us to shoot [digitally] at 24fps, or even higher frame rates, is right around the corner."

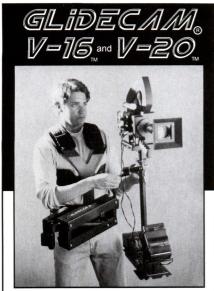
Stassen used the Back to the Future ride designed by Douglas Trumbull for Universal Studios Hollywood to demonstrate how the technology of motion simulation is put into practice. The normal patron riding the attraction sits in a futuristic DeLoreanstyle automobile and views a dome projection of a movie which re-creates a wild trip through time. The Thrill Ride shoot required that the camera be mounted at the front of the Back to the Future theater, facing the seats and audience inside the space. "We had to light up the entire theater," Phillips recalls, "and we were shooting with our fisheye lens. We had to light by placing Kinos inside the cars, or by bouncing light off the screen to simulate the reflectivity of what you would see if you were watching the movie."

## **A Chronicle of** *Mars* by Mark Dillon

The four-minute motion-simulator film *Mars* is set in a not-so-distant future when Earth has finally colonized its cosmic neighbor. Even so, the Alpha One colony on the crimson orb remains dependent upon Terran supply ships for water, food and even oxygen. However, a critical situation arises after meteer

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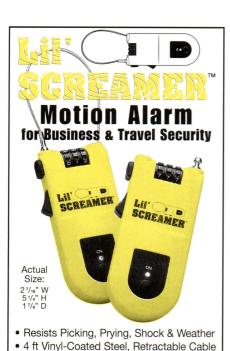


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storms disable the nuclear plant running Alpha One.

Mars is part of the Virtual Vovages series developed by Canadianbased SimEx Inc., which has been at the vanguard of special venue attractions since 1984's Tour of the Universe at Toronto's CN Tower. Theaters featuring the Mars attraction re-create the sensation of interplanetary flight with a motion-base floor that shifts in sync to a 100% computer-generated film presented in 5-perf 70mm projected at 30fps. A five-minute prologue lays out the mission story for the audience, setting the stage for the voyage. But unlike the all-digital ride itself, the three-screen pre-show (directed by Scott Weber of SimEx's Vancouver office) combines footage of real actors and CGI.

Mars was originally intended for the World City Expo '96 in Tokyo, which was subsequently canceled. The client, NHK Japan, wanted an attraction on a grand scale — the original format was 10-perf 70mm, and the venue was to be a dome 28 meters in diameter, with three 50-seat motion bases. This proved quite a challenge for creative director Allen Yamashita (see story on Terabyss in AC Aug. '93) of SimEx Digital Studios in Santa Monica, California. "To put the rider in a 'correct' point-of-view," he explains, "we'd need to deal with an image that would have a 160-degree field of view in the horizontal plane, and a 122degree field in the vertical." But with his limited budget, Yamashita could not achieve that scope by shooting miniatures. "You're talking about a huge perspective lens-wise — a fisheye lens that would provide a bit less image coverage than what was used on the Back to the Future ride. That was done in 15-perf Omnimax, so the field of view was massive." The difference is that although the Back to the Future ride was accomplished with self-lit miniatures, Universal spent \$16 million on the attraction — four times the budget of *Mars*.

Though Yamashita turned to the computer, he maintains that shooting actual footage is generally preferable. "If

something physically exists, or you can 🚊 physically make it happen on a stage or on a location — and you can do it reasonably efficiently and cost-effectively — then that's by far the best way to do it, because nothing looks more real than real life itself." Given his financial limitations on Mars, though, the piece he envisioned could only be accomplished via CGI; Yamashita wanted the audience to experience a voyage that was smooth yet thrilling. "I wanted to make viewers feel as if the whole experience was done in a single take. To do that with miniatures is extremely difficult because of the scale problems. The miniatures would have to have been enormous."

Still, the power station that viewers end up flying to in Mars took some four to five months to create in the computer. Yamashita's team rendered the structure with the help of Alias/ Wavefront software. "We probably could have built that as a miniature in 10 weeks," he says. "It cost us some money to create a computer-graphic model, but it would have cost a lot more to shoot it as a miniature. To get the kind of detail we built into the CG station, we'd have had to build that model very large. Because the physical stage area that would be needed to contain that miniature would have been large, we would have needed bigger rigs, lights and everything else."

Yamashita does not believe that a similar project using miniatures could have achieved a scope equal to the CGI work in Mars. The most effective moments of the ride include a shuttle's approach to the Red Planet and its return to Earth: first, the planets are seen from a great distance, and then suddenly the ride delves into the atmosphere to cruise above each world's respective surface. "A simulator ride," explains Yamashita, "is about driving the taking lens of a camera — I'm speaking metaphorically, of course, since there is no camera in the computer — and dragging it over real estate. And the more real estate you have, the more you can create a sensation of travel. On a miniature stage, you are bound by your taking lens, your boom, your track, and how big your stage is. Where you can put the camera is dictated by physics. In a computer, you determine the physics. All of those considerations led to the conclusion that the only place I could do the work

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was in the computer."

The meticulous detail of Mars is impressive. The first view of the Alpha One colony is as an image that barely registers on screen, but the ride soon "flies" close enough to reveal human beings on the ground, waving the craft off. And although the narrative is strictly science-fiction, it does boast some scientific accuracy: the rendering of Mars was drawn from data of the geological survey conducted by NASA's Voyager spacecraft. Yamashita views this new level of image-creating sophistication as a welcome step.

Although Mars never saw its intended Expo '96 debut, a coalition of museums and science centers around the world are in the process of building simulation theaters to showcase the program. It is currently being presented at Science North in Sudbury, Canada, the Parnell Center in Dublin, Ireland and Q-City in Mesquite, Texas.

#### U2's Own "Wonderwall" by Chris Pizzello

No one has ever accused Irish rockers U2 of a lack of ambition. From the inspired amateurism of their 1980 debut album Boy to the high-tech dance textures of this year's Pop disc, the quartet's music has always swung for the fences. With the sprawling spectacle of their current worldwide PopMart tour, the band has added to their canon a virtual redefinition of the most staid of all rockand-roll traditions — the stadium concert

To counter the lack of intimacy that divides band and audience inside a football stadium, U2 enlisted the aid of the largest video wall in existence: a 56foot high, 170-foot-wide LED display which serves up a mix of concert footage, graphics and animation throughout the band's 2 ½-hour show. The producers of the PopMart tour selected the Scitex Digital Video Abekas Dveous digital effects system to control the towering images looming over the band. The results are akin to a cross between the neon advertisements in Blade Runner and a gargantuan drive-in movie theater.

"[The PopMart tour] changes the way that you go see a show at a stadium," attests Pete Challenger, director of strategic marketing for Scitex Digital Video. "In the past, when you've just had a big JumboTron sitting at the side of the



U2 video director Monica Caston and engineer Dave Neugebauer pose in front of the PopMart LED screen.

stage, the video is more peripheral. You look at it occasionally because the band is too small [to see from a distance]. But with PopMart, the video becomes an integral part of the whole performance. The scale of the screen dominates what's going on, so that you're almost looking at live-performance television. It's a multimedia experience."

The LED electronics for the screen were built by the Montreal-based Saco company, while the actual structure was assembled and manufactured by Lorrymage Technologies in Belgium. "The challenge of the screen is partly mechanical and partly electronic," Challenger says. "LEDs of that brightness are very unusual, and I don't think I've ever seen anything like the blue LEDs that are in this screen. The entire apparatus had to be huge, but the crew also had to be able to move it [to the next venue] in eight or 10 hours. The screen is actually made up of a series of vertical panels. mostly 3 1/2 to 4" apart, and each is like a concertina; they basically fold up into big boxes that go into the back of a truck."

Three Dyeous twin-channel systems combine and manipulate the images that are displayed throughout the show, feeding and merging four separate sections and the more than one million LEDs within the display. "I use the Dveous for solarization and posterization of images, as well as for sizing, positioning and all sorts of other things," explains Monica Caston, U2's video director. "You can solarize different bandwidths of color, which makes it a lot more versatile than some systems I've used in the past. Given the configuration of the PopMart screen, I knew we'd have to put images together, and if we wanted one image, we'd have to stretch it across because of the screen's four inputs. So all of our cues run through the Dveous, mostly for positioning; we then tweak



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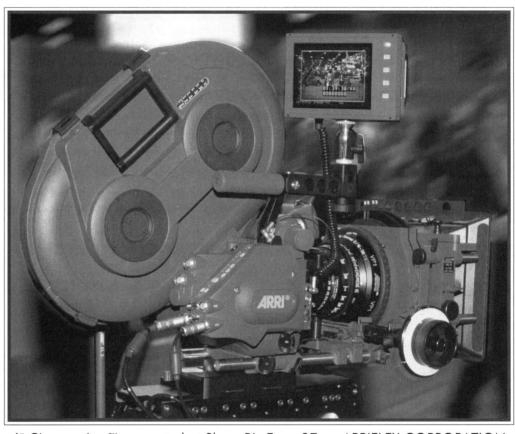
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the colors and everything else."

Five Ikegami cameras are used throughout the show to photograph the band, including a roving remote camera used to great effect during the band's surprise entrance. At the Los Angeles Coliseum concert on June 21, the four band members (lead singer Paul "Bono" Hewson, guitarist Dave"the Edge" Evans, bassist Adam Clayton and drummer Larry Mullen) were spotlit in the manner of Las Vegas championship fighters as they shuffled through the crowd from the back of the venue, eventually arriving on the main stage.

The "pop" theme of the current album was a strong consideration when imagery from various artists was chosen to be projected behind the band during certain songs. "At the beginning, the band wanted to stay away from the popicons of the '60s, like Warhol, because their work was too identifiable," Caston explains. "But as the tour has progressed, we've moved more toward the Warholian kind of look by using colorization, multiple imagery and a wall-paper look in some of the graphics."

The respective foundations representing artists such as Warhol, Roy Liechtenstein and Keith Haring were contacted by Dublin-based artist Catherine Owens, who acted as the curator or "finder" of imagery for the screen. A particular *coup* was an unreleased film by the late Haring featuring human figures swirling through each other. The piece's theme of interconnectedness is a perfect visual fit for the band's closing anthem, "One."

"The Haring foundation gave us the film, and then we gave it to an animator by the name of Runwrake," Caston recalls. "He took that film and adapted it to contemporary animation, which formed the basis for the 'One' section of the show. He also took Liechtenstein's images of fighter jets and created the animation that plays for The Edge's guitar solo in 'Bullet the Blue Sky.' Liechtenstein was very excited about having his work approached in that way."

#### Amazing Amazon by Brooke Comer

Academy Award-winning director Keith Merrill (*Grand Canyon: Hidden Secrets*) is a seasoned traveler,

trained to expect the unexpected. But upon taking his first trip downriver to shoot the Imax film Amazon for Ogden Entertainment Corporation, he found himself quite unprepared for the grandeur of the infamous Brazilian waterway. "I was certain that the Amazon would be the green hell of slithering snakes, giant spiders, and guicksand that Hollywood had prepared me for," says Merrill. Those things do exist, but according to the director, the region's dominating factors are the magnificent, majestic trees. the streams of filtered light breaking through a canopy of ferns, and the shrill cries of the native birds. "The Amazon is a mystical place that quickly overpowered my sense of fear, maybe to my own jeopardy," the filmmaker adds.

Merrill and a 12-person crew — including cinematographer Michael Hoover, who captured shots on land, and cameraman Jack Tankard, who performed aerials and underwater shooting — present this innate beauty in a 40-minute film which explores the Amazon basin with two medicine men: American ethnobotanist Dr. Mark Plotkin, and Bolivian Callawaya shaman Mamani.

Amazon is much more than a travelogue; it provides an opportunity for Western medical science to encounter Indian shamanism and explore the healing properties of plants indigenous to the Amazon. For thousands of years, native Indian tribes have utilized the local plant life to treat all types of illnesses; in the Amazon, one out of every four plants on Earth can be found, a total of approximately 60,000 species. However, more than 90 tribes have gone extinct in Brazil since the turn of the century, taking with them valuable information which could lead to treatments for cancer, AIDS and other diseases.

During the shoot, Merrill and crew visited a village of Yagua Indians who, like many Amazonian tribes, still use poison darts when hunting. The poison — a mixture of exotic plants known as curare — is generally a secret recipe that varies from tribe to tribe: the tips of spears are dipped in the concoction and then left to dry. Curare remains toxic for at least 100 years, which Merrill knew when he accidentally scratched his stomach with a spear while shooting a scene in which a Yagua tribesman fells a bird with a poisonous dart projected from an eight-foot blow gun. "At first, when I felt



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the sting, I wasn't sure if it was the real thing. I was running around asking 'Is this a prop?'" I panicked, because the poison can paralyze the respiratory system, and surgeons are fascinated by its potential as a muscle relaxant." Fortunately for Merrill, he was spared *curare* infection.

The Amazon crew carted two of Marty Mueller's MSM cameras, a 9801 and an IW5, down the river. When fitted to tripods, each of the camera setups weighed in excess of 100 pounds. but the extra bulk didn't faze Merrill. "If you spent all of your time worrying about the cumbersome equipment required to make an Imax movie," he notes, "you'd never make an Imax movie." Working from the river proved advantageous because the crew could shoot straight from the boat; the riverboat itself was the crew's living quarters/production office. "Most of the time, in the upper realms, the water was as calm as glass," says Merrill. "We could film off the bow and get wonderful shots."

The crew also built a custom catamaran by connecting two wooden skiffs — which Merrill describes as "very long, very narrow canoes" — with planks. The crew then mounted a camera on a tripod and set it on the catamaran to acquire river shots. "We used a whole variety of mounts," Merrill recalls, "including tripods, high-hats, and a monorail system set up on tripods to get a lot of movement from the camera. You can get a smooth dolly move that way in situations where you can't lay dolly track because of the jungle terrain." A light, portable crane system that worked off a tripod helped to capture shots in such unwieldy locations as "the Bolivian highlands, the Andes mountains, in vans. canoes and even a Peruvian Air Force plane. But it was worth it, because we could get a 32-foot arc out of it."

Merrill prefers constant camera movement whenever possible. "It wasn't always easy," he admits, "but we took some rail track and made a Western dolly — essentially plywood and sections of lightweight tubular track." The idea of a constantly moving camera is particularly challenging in large-format filmmaking. "You have to keep the camera moving slowly so you don't strobe, because that's a big problem in Imax. You want enough momentum to create a shifting perspective with a sense of depth. If there's a shot of a plane mov-

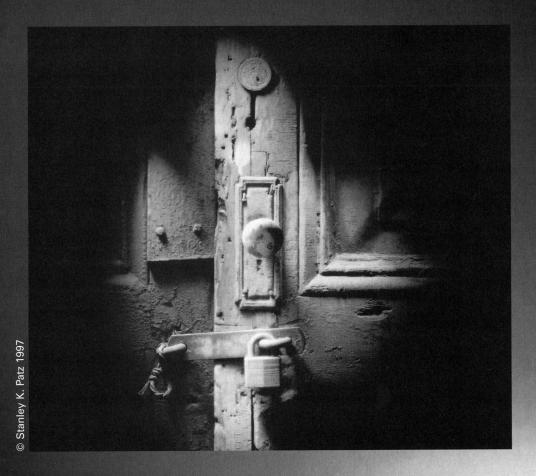
ing, and another plane is flying towards that plane, you'd swear that you were looking at 3-D [photography]. But it's just the shifting perspective that occurs in large-format shots. The dynamics of the film are enhanced by the moving camera."

Heavy equipment did weigh the crew down when they hiked off to film the lives of the Zoé tribe, who make their home in the highlands at the top of the Amazon. Merrill and his crew flew onto a small dirt airstrip, then hiked a mile and a half to the village through the thick of the jungle — all while hauling two camera systems, support gear, a full lens complement, and a dolly track, "We couldn't boat up there because waterfalls prohibit river traffic," Merrill explains. "We slogged through streams, and were knee-deep in mud." Merrill credits the equipment's safe arrival in the Zoé village to his rugged crew. "Both of our cinematographers. Michael Hoover and Jack Tankard, are combat guys; they're on the Alpine Rescue Team in Yosemite Valley. Either of them can take a crew of three and some camera gear, go anywhere in the world and come back with extraordinary film. Some of our crew had been to the top of Mount Everest, and all of them were seasoned climbers."

These expert climbing skills proved a boon in the Andes, where the hiking began at a 20,000' location so remote that most aerial shots had to be executed with a fixed-wing aircraft. Merrill notes, "Aerials are usually done with a helicopter, but we couldn't get an extra helicopter just for aerial shots, so we mounted the camera to the same plane we'd used for transportation — an old Grumman Goose from the 1940s."

In the end, the dangers that Merrill initially envisioned were the least terrifying and the most photogenic: slithering green worms and giant spiders make for captivating on-screen imagery. The real hazards were human in nature. "At one point, we were floated across a river because the bridge had been blown up by terrorists connected to a drug cartel. We were accompanied by armed guards, who were supposed to protect us from the terrorists." Aside from the potential terrorist attack, the director had reservations about his military escort. It's hard to feel secure when your only protection is a 16-year-old with an Uzi in his hand."

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## The Great White North on a Great Big Screen

Alaska: Spirit of the Wild uses Imax technology to convey the splendors of America's last frontier.

by Brooke Comer

he new Imax film *Alaska: Spirit* of the Wild gives viewers an intimate look at the majestic wilderness of America's northernmost state — the shimmering auroral arcs that illuminate gelid night skies; the snow-capped peaks of the monumental Mt. McKinley; the Native Alaskan Inupiat tribe engaged in a whaling expedition on the Arctic Ocean near Barrow; as well as face-to-face encounters with the herds of caribou, elk and moose grazing in the state's central portion, and the brown bears, sea lions and humpback whales thriving in the southeastern Maritime.

Director George Casey, who has earned three Academy Award nominations (including one for *The Eruption of Mount St. Helens*, the first Imax film nominated for an Oscar), is a veteran of large-format filmmaking, with a resumé of such titles as *Genesis*, *The Great Barrier Reef*, *Planet Ocean*, *Probes in Space* and *Ring of Fire*. His com-

pany, Graphic Films Corporation, has made more than a dozen Imax features, and was approached to produce this film by a private investor's group affiliated with the Museum of Natural Science in Houston, Texas. Long intrigued by the stark beauty of the frozen north, Casey embraced the opportunity to capture Alaska's wonders with the Imax system. "Alaska is amazing," says the director. "Where else can you find the tallest mountains in the northern hemisphere, 70 active volcanoes, and over 100,000 glaciers? And because of the low sun angles at those high altitudes, there is this marvelous low-angle lighting throughout much of the year."

Casey's company most recently shot the Imax film *Africa: The Serengeti*, which, like *Alaska*, took the director into an unfamiliar, exotic locale teeming with ferocious wildlife. "We had many of the same kind of problems on *Alaska* 

that we did on Africa," admits Casey. "It wasn't only the wildlife, or the rough terrain. It was more the fact that there was so much material to film, and we had to keep the film's running time down to 40 minutes. We shot 250,000 feet of 65mm negative on Africa, and almost 400,000 feet for Alaska." (Imax films are generally exhibited every hour. The theaters which show them prefer the films to be no longer than 40 minutes — the equivalent of 2 ½ miles of negative so that technicians will have time to rewind and rethread while audiences are moved in and out of the auditoriums.)

Alaska's harsh weather proved problematic for Casey, cinematographer Rodney Taylor (who had served as an assistant cameraman on *Africa*) and a skeleton crew which included production manager Greg Eliason, key grip Denny Tedesco, camera assistant Jim Matlosz and second-unit

Frames from the film show scenic POV aerial shots of the Alaskan landscape. cameraman Sean Casey, the director's son. The team spent a total of 35 weeks in Alaska over a period of 18 months. The light-filled summers presented so many photographic opportunities that the filmmakers opted against limiting themselves to merely one season. Says Casey, "We also shot during spring and autumn, in as many different areas as possible, because Alaska is so vast and offers such diverse scenery."

Taylor, the show's director of photography, began his career shooting live sports in his native North Carolina. Soon after he relocated to Los Angeles to break into the feature film arena, he received a call from cinematographer Mehran Salamati, who needed an assistant cameraperson on the Imax film Ring of Fire. Before Taylor knew it, he was in Japan shooting an erupting volcano with the Imax system. The cinematographer admits that he had some mixed feelings after handling an Imax camera for the first time. He recalls, "My first thought was 'Good grief!" The camera was massive, and we were shooting documentary-style. It was a little awkward at first, because the camera was 41 inches across and the mags sat on it like Mickey Mouse ears — one on each side. I thought it would take a long time [to learn], but I was surprised to find that it didn't. We did several setups a day and got good material. You have to select your shots carefully, though, because film is running through the camera at \$11 per second."

Graphic Films is one of the few production companies with its own large-format camera, and Casey has high praise for the late

Jeff Williamson, who designed the camera used to shoot Alaska: the Williamson W4, the first mirrored reflex Imax camera. Casey's company had previously used the W4 to capture erupting volcanoes for Ring of Fire, and animal migrations in Africa: The Serengeti. "Jeff

Williamson ended up designing some of the most advanced cameras for Imax work, but ours is the first one he built," says Casey. "Even though it's an older model, it's extremely dependable."

The Williamson W4 weighs in at about 100 pounds when loaded with a 1,000-foot roll of 65mm negative. "When you film in an underwater housing," adds the director, "you're talking about a 400-pound package — all inclusive — which is a large housing envelope for a cameraman to be shoving around." Casey chose to purchase a camera of his own "because we need flexibility for the kind of work we do. When a volcano is about to erupt, or ice is about to break on the Yukon River, we need to have something on hand we can grab right away.

Had it been damaged, the rare W4 would have been virtually impossible to replace, but cameraman Taylor had no qualms about carting such a valued camera into the wilds of Africa and Alaska: "You can't let your fears keep you from treating it like any other tool to get the shots you need," he says.

Imax films are presented

in two kinds of theaters — flat-screen venues and domed cinemas — and the filmmakers had to cater to the specific demands of each type of screen. Casey offers, "We had to be careful to ensure that the subject matter was properly composed in each frame, and that the right mix of lenses

were used to make it a pleasant and powerful experience for both theater formats. It would have been prohibitively expensive to shoot different versions of a film for both the flat-screen and domed theaters."

The director also notes that domed theaters are more challenging to shoot for "because close-ups tend to go concave. You have to be careful that images aren't unduly warped to the point where they look unnatural." A two-minute computer-animated sequence in *Alaska* illustrating the state's very different geography during the Ice Age (which featured reduced sea levels and combined continents) "took a fair amount of testing to keep it from looking distorted on a dome screen."

Imagica USA, a Los Angeles optical house which specializes in large film formats, contributed extensively to the post work on *Alaska*, including the creation of this digital sequence. "They bailed us out on a number of postproduction problems," says Casey. "They composited our main titles, flopped a number of shots so various editing cuts would



**Clockwise from** top: An Alaskan wolf howls after feeding; a female polar bear leads her cubs along a frozen river: a shot of the filmmakers taken with a 30mm Hasselblad "fisheye" lens attached to a helicoptermounted Imax camera (from left: cinematographer Rodney Taylor, director George Casey and pilot Jay Laub).

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with few dolly shots and little camera movement. "The 300-1200mm Century zoom lens, which we used as a variable-focus lens, was a big help," says Taylor, "because you don't have to pick up the large camera and move 15 feet closer to the animal." When Taylor assisted on Africa: The Serengeti, he "could get very close to the exotic animals in wildlife parks with no thought of danger. The animals were used to humans in vehicles. But in Alaska, the wildlife is more sensitive to human beings, so you really need a long lens to shoot there."

While filming grizzly bears digging for clams in Katmai National Park, the crew of four approached stealthily with a camera. "We'd been told that grizzlies won't attack four or more people," the cinematographer explains. But

Above: Director of photography Rodney Taylor (kneeling) and assistant cameraman Jim Matlosz (at left) prepare for a rail shot on a snowencrusted tundra near Nome. Taking a break in the background are young Native Americans portraying the first hunters to enter Alaska from Siberia. Far right: Taylor uses a Porta-Jib mini-crane to film a shot of paleolithic Alaskan hunters. Near right: Matlosz braves the elements, changing an Imax magazine barehanded at 10°F during the filming of a sequence on an

ice pack at the

edge of the

Arctic Ocean.



work, repositioned a number of compositions to enhance dissolves and transitions, and exorcized a pesky negative scratch from some of our best shots. In the early days of Imax, we did have the access to all these optical and digital capabilities, but they now make a huge difference."

The filmmakers found that a Hasselblad 30mm lens lends itself perfectly to the Imax domed theaters. Casey expounds, "The Hasselblad fish-eye lens let us put an image on film which, when projected back in an Imax domed theater through a fish-eye projection lens, fills the inside of the big, tilted screen and creates a remarkable sensation of 'being there' — particularly in the case of POV aerials or moving shots of herds of caribou leaping over the cameras."

Taylor used the Hasselblad lens series extensively on the *Alaska* shoot, ranging from the fisheye 30mm to a 350mm. These lenses are generally fairly slow, with an f-stop of 4, but the maximum depth



of field achieved at highter stops can be a boon to Imax photography. On a feature film, the cinematographer typically manipulates his f-stop with neutral-density filters to limit depth of field, so that the audience can focus on a specific object within the frame. But as Taylor notes, "When you see things in real life, almost everything is in focus, so the extra depth is fine in Imax. When you start using a telephoto zoom on wildlife, of course, some of that depth goes out the window. I tried to capitalize on the landscape and helicopter aerial shots, to show Alaska in a way that really makes the audience feel as if they're there."

Like most nature films, Alaska was filmed from a tripod,

they still could only get within 250 feet of the bears, which is "barely an acceptable scale for the Imax screen, even with the 1200mm lens." When the bears were not looking in their direction, the crew would creep forward while toting both camera and tripod. "But by the time we'd moved 100 feet toward them," says Taylor, "the bears were another 250 feet away again."

While the 300-1200mm zoom also allowed the filmmakers a closer look at the elusive Alaskan wildlife, such proximity could sometimes be difficult to stomach. Notes Casey, "This is especially true when you're dealing with predation and violence. The [family-oriented] museums and science

centers where most Imax theaters are based prefer not to show footage that is disturbing or alarming to young children. When footage for *Africa: The Serengeti* was being test-screened for the first time in an Imax theater, we heard gasps and groans, and realized that a shot of a lioness feeding on a wildebeest — with her muzzle dripping blood — had overwhelmed even the jaded Imax projectionist."

Such experiences prepared Casey's Africa-seasoned crew for similar encounters with predatory activity during the filming of Alaska. The director recalls, "In filming native whalers on the Arctic coast of Alaska, we were determined not to film them in the act of harpooning, judging that this would be too unsettling for audiences. Instead, we filmed scenes of the whale being harvested and divided up among native villagers on the ice pack." These scenes were still deemed to be too devastating by executives, and were eventually deleted from the final cut. "As a documentary filmmaker, these constraints bother me," says Casey.

"But I can understand the museum's desire to keep their theaters free from trauma for its core family audiences."

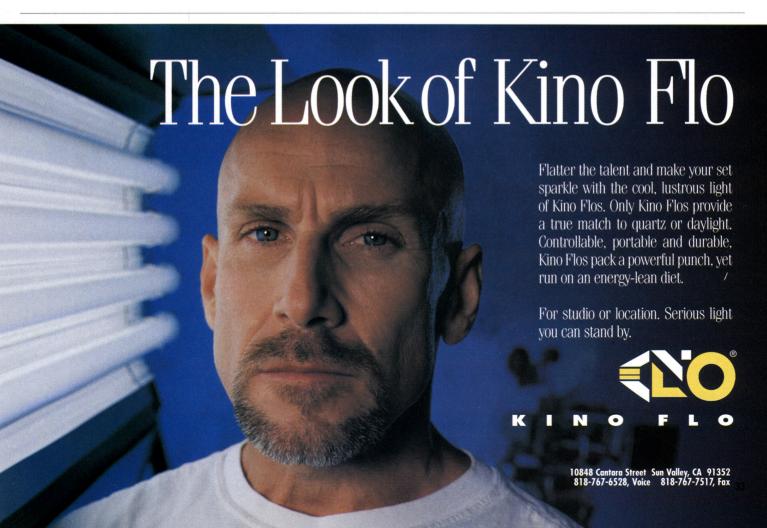
When filming people or wildlife in the Imax format, filmmakers must frame their images accordingly. Cinematographer Taylor notes that "normally in a feature film, you have minimal headroom, but in Imax you have to have a great deal of headroom, because you don't want people to have to look up so high on the screen. And on the dome screen, images of people will warp. You want to have things weighted toward the center of the screen so the audience knows where to look, and so they can use their peripheral vision to help put them in the scene. In conventional documentary shooting, close-ups are used to reveal details of the surrounding area. But when you're shooting an Imax documentary, the large screen shows so much that the audience can see everything at once."

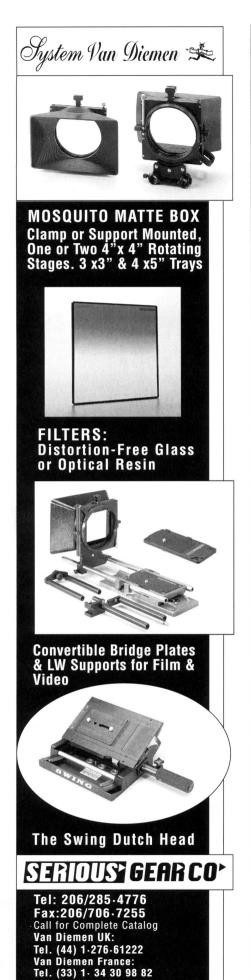
The impact of the giant screen also limits camera movements that would be perfectly ac-

ceptable in the 35mm format. When panning the camera, Taylor observes, "one has to be very aware of strobing. The screen is so large that objects tend to strobe more than in conventional films; each shot has to be choreographed to limit the amount of strobing that the audience will see."

Casey concurs, adding, "You have to be very careful, because people are so close to the screen. Pans and tilts can be disorienting because the image is so huge, and when you are corkscrewing a camera plane into a canyon, the audience can become airsick in very short order."

The months that the crew spent in Alaska happened to be particularly overcast and frigid. Taylor worked with the obstinate weather by shooting on 200 ASA 5293 tungsten stock and employing an 85C filter during the gray days to lend the footage an *emotional* coldness. "We needed a faster film than [50 ASA] 5245 because of the overcast conditions, combined with the T11 300-1200mm lens," he says. When blessed with sunny





skies, Taylor created additional warmth with an 85B filter. "When you're shooting with an Imax camera, you want to wait for the best light, but if we had done that, we'd still be up in Alaska," he jokes.

Compounding the crew's difficulties was the inclement weather's tendency to cause the 65mm film stock to become brittle. "When we first took the camera up to Alaska," says Taylor, "we rebuilt it so that it would come up to speed in one second. Then we had to go back and add a switch so we could have the option of slowing down the ramp-up speed to three seconds, because when it got really cold the film would rip as soon as we started up." Heaters were also installed in the magazines, but even these devices were prone to break down. At one point, Taylor was filming buffalo in a bitter snowstorm when the camera suddenly seized up. The crew had to stuff handwarmers inside the camera and then wait for 30 minutes until it began functioning again. "Just when we were running out of light," says Taylor, "we got our shot. You have to be resourceful when you're working with an Imax system, no matter where you're shooting. You can't just call and order another camera."

During the course of production, Casey's crew utilized nu-

merous types of vehicles for transportation and for camera platforms: 15-foot Zodiac inflatable boats, Boston whalers, dogsleds, float planes, mountain bikes and helicopters. The various vehicles necessitated some specialized mounts from a customized collection Graphic Films had designed specifically for large-format filming. Casey's favorite is a special helicopter belly (or chin) camera mount devised for Bell Jet Ranger helicopters, the most commonly available model worldwide. Explains Casey, "Our goal was to create a non-vibrating, motorized-tilt mount which would extend the camera just under the nose of the helicopter, providing an unobstructed POV. We've designed and worked with five different models over the past 20 years, but this one is the best I've ever used or seen which can accommodate our camera. This mount was used to film numerous POV aerials as we flew through the spectacular Alaska ranges and into huge glacier crevasses."

Pilot Jay Laub was instrumental in improving the steadiness of the mount. Graphic Films also owns a modified Tyler Major Mount that Casey acquired from the military; this piece of gear proved particularly useful for the aerial filming of wildlife.

#### **Smooth Running**

The newer, lighter Imax cameras are not the only revolution in large-format technology. Imax projection systems, according to Imax projectionist Kevin Carter, "have improved by leaps and bounds." Carter explains that the automation, diagnostics, and storage of information in projection systems have reduced the time and trouble often incurred by manual functions. "The guts of the projection system is the same," he explains, "but a lot of them are now automated through a PLC central console."

Currently, dust and particles which pass through the aperture of the field-flattening

lens are removed by wiper bars moved up and down by compressed air. But Carter can program the frame counts, and push a button instructing the PLC computerized control when to open the projector door (dowser), to allow light to pass through the lamp house onto the screen. "You don't want it opened before the projector is up to speed," says Carter. "Usually when film melts or when the projector is broken or stuck, it's because the dowser is not functioning properly. The new projectors don't run the risk of tail-out, which was a real concern in the older projectors."

— B. C.

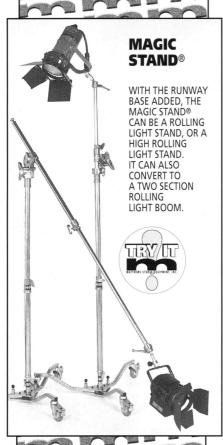
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One of Taylor's most memorable experiences on the *Alaska* shoot occurred in Barrow, where the crew spent four days ice camping with Native Alaskans (the Inupiat tribe) on a traditional whaling expedition. As Taylor spent more time with the Inupiats, he lost his reservations about their whaling practices. "These people look at whaling as a religion, and while I still don't condone whaling, I came to see it more from their perspective," he admits.

The crew packed equipment onto snowmobiles and two handmade 12-foot sleds, and carried knives on their belts in case they plummeted through the ice. "That way, you could stab the ice and hang on until someone could spot you and pull you out of danger," says Taylor. The cinematographer was witness to other hazards that only a film crew could truly appreciate. "If the captain saw that the ice was breaking, we had 30 minutes to pack our gear and move to the other side. Sometimes whaling crews have to leave snowmobiles and camps behind as they scramble for safety, and the stuff just drifts out on an ice flow into the ocean, never to be seen again. We definitely wouldn't have wanted that to happen with the Imax camera!"

After completing his work on Alaska, Taylor began shooting *Firefighters,* an Imax film for Discovery Pictures, with the new lightweight MSM 9801 camera designed by Marty Mueller. The cameramaker's Idaho-based company won an Academy Award in the Scientific and Technical division last year for the design and development of the camera, which weighs just 54.6 pounds in full production mode, including matte box, color video assist, 1,000-foot magazine, 40mm lens and viewfinder. (For more specs on the 9801, see story on Super Speedway in the June '97 installment of AC's Production Slate section). "Working with the MSM was almost like shooting with a traditional motion picture camera," the cinematographer notes. Taylor admits that there were times on Alaska when a lighter camera would have better facilitated his job, such as "when

we had to hike two miles into McNeil River to film grizzly bears, and we could only bring three people. It wouldn't have been a problem with a 16mm camera, but it took us two trips to get the camera to the location, along with all of the accessories. But I still wouldn't call size of the camera a limitation. It's just a consideration if you're doing rugged outdoor work."

Marty Mueller notes that feedback from cinematographers like Taylor have helped him maximize his camera designs while also minimizing their bulk. In his eyes, there's a general misconception that the size of Imax and other large-format cameras is a hindrance. "The truth is that these cameras aren't big and heavy anymore," says Mueller. "The shooting requirements aren't that rigid, and people shouldn't be scared off by the equipment."

Although the Williamson W4 camera Taylor wielded on Alaska is the most weighty of the Imax line, Mueller emphasizes that "weight can be an advantage when you're shooting wildlife, because it gives you image stability. It's just harder to get it around in the backwoods to find the wildlife you want to shoot." To better stabilize the image, Taylor placed six five-pound shotbags (small fabric bags filled with lead pellets) on the lens

The newer MSM 9801 camera that Taylor used to shoot *Firefighters* weighed half as much as the Graphic Films camera, and allowed the cinematographer to perform handheld shots. And while compatibility was once a limitation, the latest Imax cameras can now be fitted onto the same tripods or hotheads as Panavision or Arriflex units.

and magazines.

Now that Imax films are progressing into the narrative realm (with such features as the 3-D film Wings of Courage, profiled in AC Aug. 1995), the dilemma of clamorous camera equipment is the next obstacle to be surmounted in large-format filmmaking. "Noise is still a factor," admits Mueller, "but most Imax filming is done outdoors, not on a soundstage, so keeping it quiet isn't always a major issue." ◆

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n astronomer's lingo, an "event **⊥**horizon" is the point at which light and matter are ensnared by the immense gravitational field of a black hole, the remnants of a collapsed star. Scientists and science-fiction writers alike have postulated that black holes could possibly be portals to a distant galaxy, a parallel universe, or perhaps even Heaven or Hell. In British director Paul Anderson's sci-fi horror film Event Horizon, this astral phenomenon also provides the name of a prototype starship powered by the energy of a black hole. After a seven-year disappearance, the ship has mysteriously rematerialized over the planet Neptune. A rescue mission mounted from a salvage ship — the *Lewis & Clark* — reveals that the derelict vessel has been ravaged by a malevolent presence whose origins date back to the Earth's Middle Ages.

Above right:

(Laurence Fishburne) and

(Kathleen

Quinlan)

explore the

main access

corridor of the

Event Horizon. *Note* 

supplemental

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Biddle, BSC

mans the

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Below: Miller

hellish ordeal in

Far right: Adrian

Peters

Captain Miller

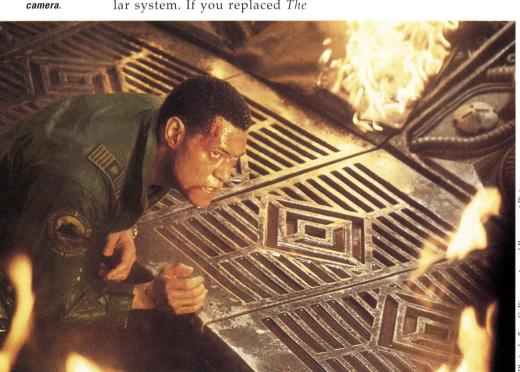
This quasi-mystical plot provides the perfect backdrop for grim episodes of Gothic space horror. Director Anderson offers, "Event Horizon has a lot more in common with The Haunting or The Amityville Horror than The Black Hole. This film is about spacemen in the future who come face to face with a very medieval kind of evil in the far-flung reaches of our solar system. If you replaced The



# **Unearthly Terrors**

Director Paul Anderson and cinematographer Adrian Biddle, BSC enter the darkest depths of space in *Event Horizon*.

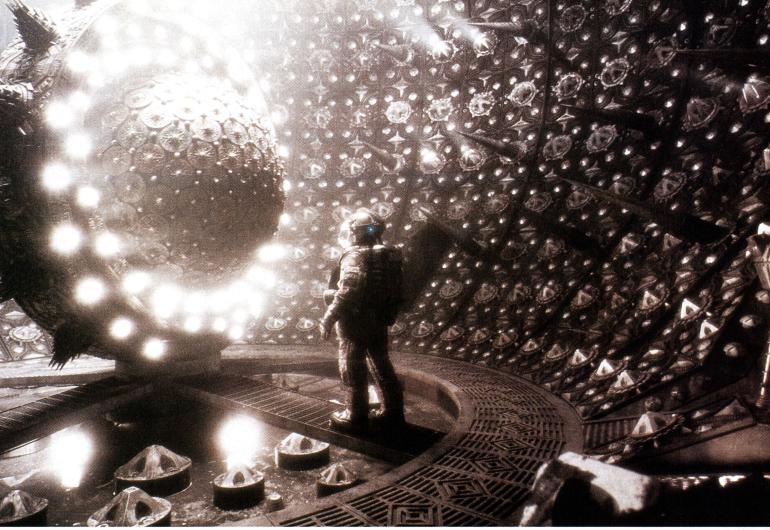
by Ron Magid





Shining's Overlook Hotel with a labyrinthine spaceship orbiting Neptune, you'd have the basic premise. It's a great bonus that the story is set on a giant spaceship, but we're not making any bones about it — we're out to scare and revolt people like they did in the good old days! We don't want any of this namby-pamby postmodern horror attitude, we just want people to jump off their seats. I wanted to make the kind of frightening horror movie that I loved as kid, like Alien."

Anderson's previous pic-



tures — the \$3 million independent cult film Shopping (1993) and the \$23 million effects extravaganza Mortal Kombat (1995) — proved that he could milk maximum impact from frugal financing. Event Horizon's budget of \$70 million offered considerably more breathing room, but still proved to be a daunting project. Anderson therefore entrusted its look to some of the business' top talent, including cinematographer Adrian Biddle, BSC and visual effects supervisor Richard Yuricich, ASC. "I think both Adrian and Richard are pretty sick individuals," Anderson opines with a chuckle, recalling a sequence in which one Lewis & Clark crew member gouges out his own eyes. "Richard was suggesting things like, 'He could sew his eyes back up again and we could do it in CG!' I'd reply, 'I'm a hardened horror fan, but even I don't want to see that!' Then Adrian would say, 'If I put a light here, we could get more light into the empty holes of his eye sockets.' They definitely got into the spirit of the film."

Adrian Biddle has spent much of his career realizing fantastic yet believable milieus. In his early days as a camera assistant, he donned a pair of skis to shoot the famed toboggan chase in the James Bond adventure *On Her Majesty's Secret Service*. He also did some striking underwater work on *Captain Nemo and the Underwater City*. Biddle then served as a focus puller on director Ridley Scott's first two features — *The Duellists* (shot by Frank Tidy, BSC) and *Alien* (shot by Derek Vanlint).

Biddle's subsequent TV commercial work for Scott and other filmmakers netted him two Minerves prizes and a British Designers and Art Directors Guild Award for Outstanding Cinematography. He later served as director of photography on Scott's films Thelma & Louise (for which he earned an Academy Award nomination) and 1492 — Conquest of Paradise (see AC Oct. 1992). He has also served as director of photogra-

phy on *Aliens, The Princess Bride,* Willow and Judge Dredd.

Having photographed so many genre films, the cinematographer concedes that devising a unique approach can be difficult: "A lot of it is done in conjunction with the director and the production designer. On Event Horizon, I was fortunate to be working with a director like Paul Anderson and a production designer like Joseph Bennett [Jude, Backbeat, Dust Devil, Hardware]. They really have a feel for these things. We went for more of a Gothic approach inside the Event Horizon ship, which has all of these crosses and objects of that nature within it."

When it first appears onscreen, the *Event Horizon* craft itself resembles a giant crucifix hovering over the surface of Neptune. "The spaceship was built on a cruciform, like all cathedrals are," Anderson explains. "We began the design process by literally scanning the Notre Dame cathedral into the computer and then construct-

Noseworthy) confronts the evil-infested inner core of the haunted **Event Horizon.** The rings of lights encompassing the gyrosphere (known as the Third Containment) were attached to special revolving rigs.

Justin (Jack



Above: Starck (Joely Richardson) and Cooper (Richard T. Jones) are rescued by a search party. Right: Justin heads through an ominous passageway leading to the Second Containment

ing the *Event Horizon* out of those Gothic elements. For example, the big thruster engines are an adaptation of the Notre Dame towers, repositioned on their sides. A lot of the iron and steel work of the superstructure is based on the cathedral's stained glass windows. The ship also has a lot of triptych windows and big recessed crosses.

"When Adrian and I first sat down, we said, 'Let's do something completely different," says Anderson. "Since we were going into outer space, I felt we had to have a really strong design concept; otherwise Event Horizon would have ended up looking like [a bunch of] other movies cobbled together. We spent a lot of time coming up with a design concept, which we called 'techno-medieval.' When the lights are on, everything looks very technological and very spaceship-like. But when the lights go off and the haunting begins, you start looking at the shapes, and the architecture is actually very medieval. We extended that techno-medieval design idea into as many aspects of the picture's look as possible, without rubbing the audience's nose in it."

Beyond this hybrid production design, Biddle and Anderson struck upon the idea of using colored gels, a tactic not typically employed in films with such bilious subject matter. In moments of

maniacal hysteria, for example, the spaceship's interior seems to come to life as a bloodlike substance courses from the walls. Notes Biddle, "I used some sepia brown coming up from the floor to make viewers uncomfortable on the ship, as well as flashes of red. I also used a lot of green. Cinematographers generally shy away from green, because it's not very pleasant, but on Event Horizon I used gels to produce that nasty, horrible green you get from fluorescents when they're not corrected [for color temperature]. If you're in an underground car park, the fluorescents make you feel uncomfortable. I was going for that kind of an effect, to convey the idea that something not very good is lurking in the ship."

When Anderson first met with Biddle, the director showed him several improperly balanced photographs of a rock 'n' roll band standing in a corridor lit by fluorescent lights. The images had all gone a ghastly green. "It was like mistake-green," says Anderson with a laugh, "and I said to Adrian, 'That's exactly the color we want.' On Mortal Kombat, [director of photography] John Leonetti and I really raided the lighting truck for gels that nobody else ever used deep purples, shades like that. Adrian and I tried to do the same thing on this movie. We wanted unpleasant colors that would really unsettle people and make them feel a little ill and queasy. Adrian had just come off of 101 Dalmatians, and our attitude was, 'Enough of the cute little puppies — let's string a few of them up!""

Biddle framed *Event Horizon* in widescreen anamorphic with Panavision equipment, just as

he had done on 1492 and Willow. In an unusual move, the cinematographer photographed the entire film on Eastman Kodak's 500 ASA 5279 Vision stock, which he began using last summer, midway through production of director Neil Jordan's upcoming film The Butcher Boy.

"The 79 was perfect for Event Horizon, because I get better blacks with it than I do with 5245 or 96," he says. "The 79 can be very forgiving in the dark. And in anamorphic, I'd rather go for a bit more f-stop to bring the quality up and

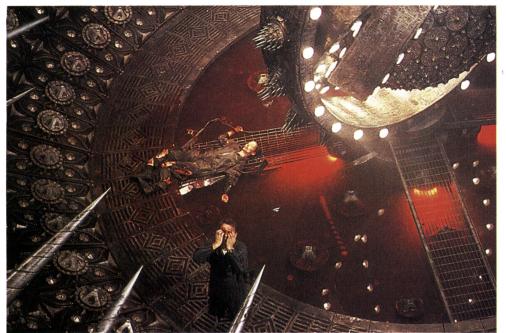
get finer grain." The interiors of the Event Horizon spacecraft filled most of seven soundstages at England's Pinewood Studios, including its vast 007 Stage. These massive sets would appear to offer unlimited directorial possibilities, but Anderson's insistence upon bizarre interior designs created a fair share of cinematographic constraints. In defending that tack, Anderson notes, "Whenever people build sets, they always tend to look like square boxes. It would have been easier to build sets with flat floors and flat walls to give ourselves lots of room for the camera, monitors



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Above: Tormented by visions of his ex-wife. Weir (Sam Neill) clutches his empty, bloodied eve sockets near the corpse of Peters. Right: The Burning Man (Noah Huntley) appears in the Main Access Corridor, Biddle lit the 140'-long tunnel by placing fixtures along the outside of its

frame.

and sound equipment, but it wouldn't necessarily have looked the most interesting. I wanted to get away from that 'big room' feel by building sets that were very different, using visually striking, interesting shapes. By doing that, of course, we actually made things more difficult for ourselves. We tried to get Adrian involved as soon as possible [in the design of the sets], since I knew they would be difficult to shoot in."

One of the larger sets was a vast, elliptical-shaped corridor with a ceiling formed from massive ribs that resembled those of a whale. Anderson wanted to view the entire span of the 140'-long tunnel as the astronauts moved through it. To achieve the shot, Biddle shone light into the set by placing fixtures along the outside of its frame. His on-set light sources were the astronaut's flashlights and the fixtures built into the helmets of their spacesuits. "We gelled the set itself and set up our units outside," Biddle explains. "I used lime green lighting through the windows, between each of the ribs. It was sort of a green-blue, which was supposed to be light coming from Neptune. In some of the other windows, we had a bit of red lightning flashing from a swirling storm over the planet. We had to use quite a lot of smoke in the green corridor, and we had hun-

dreds of lamps behind the set. Once the fixtures were on scaffolds and throwing light all around, all of them had to go back to dimmers. We also used Lightning Strikes units to create both lightning and strobe-lighting effects; sometimes they were gelled and sometimes they were white. We had about 50 on that set, which took weeks to rig."

The colossal 007 Stage the biggest silent stage in Europe — housed the *Event Horizon*'s core, comprising three "Containments" that harnessed the black hole's energy. The sets consisted of the First Containment (a rotating corridor) connected directly with the Second Containment (a large, bowl-shaped room) which itself housed the Third Containment (a gyrosphere of spinning lights encompassing the black hole itself).

Each Containment presented unique cinematographic challenges. "The First Containment was a 50'-long tube that actually rotated, so the only bit that wasn't moving was this really thin walkway that ran down the middle of it," Anderson says. "The whole thing was like one of those turbines in a carnival's 'House of Fun,' where you walk through and fall over because you lose all sense of balance. The only place to put the camera was on the walkway, so we built dolly track into it in a discreet way, which allowed us to track down the length of that tube."

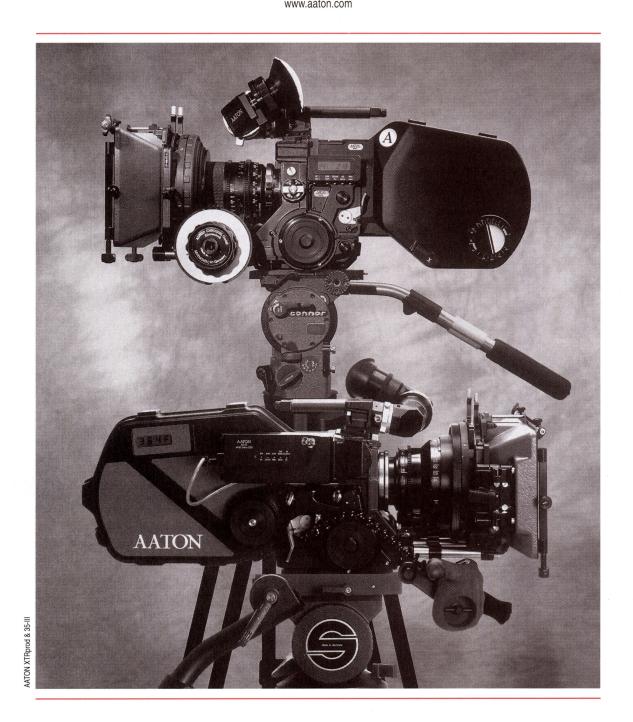
This Containment's dark, revolving corridor was studded with a swirling vortex of lights which served as a hypnotic beacon for the crew of the Lewis & Clark. Biddle even bolted the camera to the floor to create a sense of vertigo as the set swiveled upside-

> down around the actors. Biddle recalls, "We shot several sequences that involved the tunnel. That set was one piece, and the whole thing revolved 360 degrees, so it was a big challenge to light. There was no way to place individual lights inside the set, so we had a big rig all the way

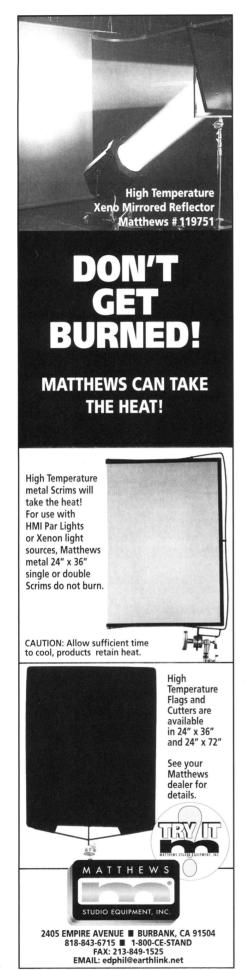
around it with lights on it that shined through the holes in the rotating walls. We had about 80 large 10Ks all along the outside pouring light in."

The First Containment, however, is merely the entranceway "to the room of evil," as Anderson dubs the Second Containment. The director explains, "It's a large circular room with huge spikes coming out of its walls. But because it was a different shape than traditional sets, with curved rather than flat walls, we didn't actually leave ourselves a huge amount of room to work in. The Second Containment was partially flooded as well, so if we weren't trying to stand on a curved wall, we were up to our ankles in water or we were standing in front of the rotating Third Containment in the center, which could knock you over."

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To lend the Second Containment's circular chamber a threatening ambiance, Biddle once again opted to backlight through the walls' metallic grillwork. "I couldn't really create claustrophobia in this huge set, which was like a big fishbowl, so I had to unnerve people with lighting," the cinematographer admits. "All of the characters ended up inside that particular set at one point or another. When they first come in, it's very dark, and when the power comes back up on the ship, the lighting changes. We used lasers, and did some practical pyro work in there as well. We had some lights coming from behind the walls and from the top as well. My gaffer, Kevin Day, who's worked with me on most of my pictures, put all of that in — not just small units, but major-kilowatt units. We'd go right up to 20K or so in the set. Every lamp we had on the whole movie was on a dimmer or had some sort of gel on it, so they all had to go back to a computer board, and Kevin did all of that. He's my right-hand man."

Biddle and his crew were constantly fighting the clock in the Containment sets, which had to be struck by a certain date. Despite the time crunch, Biddle did achieve some spectacular camera moves within the Second Containment's 360-degree "fishbowl" setup, with several rigs built either into or outside of the set. "We did some great shots in there," the cameraman enthuses. "Every shot in this movie was moving, except maybe a couple of effects shots. We dollied around the base of the sphere. and since the set didn't have a ceiling, we also reached down with a crane mounted outside the set and did boom moves up and down."

Anderson elaborates, "We did some very fluid, sweeping, lovely camera moves in this oddly-shaped set. Those moves, combined with the revolving gyroscope, created a great sense of movement. We also built a pivot point at the top of the set, right above the center of this huge room, so the camera could peer straight down at the Third Containment, and rotate as well."

The Third Containment

consists of a large, spinning gyroscope — layered with lethal spikes — that encloses the black hole powering the *Event Horizon*. "It's the evil heart of the ship," Anderson explains. "We wanted it to look so mean that you wouldn't want to be in the same room with it. I also wanted it moving all the time to give it an intelligence, and so that it would feel like a pulsating brain."

To create this effect, Biddle and Day put lights on tracks covering the sphere's surface, then set them in motion for each take. "We covered the Third Containment with 500-watt bulbs on strip rigs," Biddle explains. "The lights covering the sphere revolved like a huge 'executive toy.' It's almost like an atom or a model of the universe; all of those things were involved in the design. There were an awful lot of lights revolving on tracks around this sphere."

The Third Containment was also one of many setpieces Biddle shot with actors against blue- and greenscreen. In one such sequence, the engineer of the *Lewis & Clark* is dragged into the sphere after touching it. "We shot a lot of that against bluescreen inside the set, and we took the sphere out and set it up against blue," Biddle says. "I worked very closely with [visual effects supervisor] Richard Yuricich on that. If ever I had a question, he helped me out."

Given Biddle's resumé, he's become something of an specialist shooting scenes involving special effects. It's an expertise which the cameraman says arose "probably more by accident. If you're going to do a movie on stage, effects are usually part of it. You have to keep an eye on that aspect when working on those movies, but a lot of it is up to the effects unit. I don't think there's anything too difficult about working with effects, because in the end, you don't want an effect to *look* like an effect. I think the way to approach it is as if it's not an effects shoot. Although the elements you film may be complicated, in the end, they're only going to go into a shot that is meant to look natural."

Biddle maintains that digital technology actually freed

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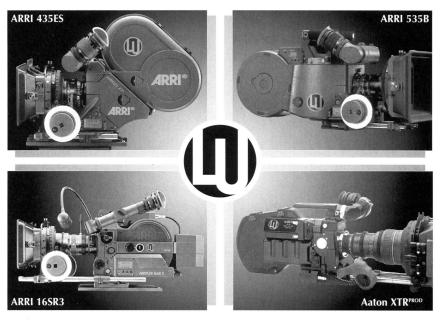
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126 Russ St, San Francisco, CA 94103 • 415-553-7700 Fax 415-553-4535 • http://www.lucamera.com/home.html up his cinematography on the effects-driven Event Horizon, "especially with shots involving blueand greenscreen, which we did quite often. We had a lot of wirework whenever we had characters who went out into the zero-gravity of space, so I was happy about the prospect of digital wire removal. We shot both blue- and greenscreen depending on what the predominant color of the light was. If it was green, we used bluescreen, and vice-versa."

One of the film's more complex wire gags occurs when the Event Horizon's designer, Dr. William Weir (Sam Neill), tries to shoot Captain Miller (Laurence Fishburne) and misses, instead blowing a hole in a cathedralshaped window. "Everything gets sucked out, including Sam Neill," Biddle laughs. "We did the shot inside the ship with a lot of wirework and practical explosions. It took forever to set up, and a couple of days to shoot. The area beyond the window was supposed to be outer space, but there was just black. Any shots of Sam Neill in space were done with bluescreen."

In the macabre world within the Event Horizon, evil manifests itself via visions of the most traumatic events in each character's past. Rather than using a stylized or surreal photographic treatment for these encounters with personal demons, Biddle deliberately chose a very matter-offact approach: "I treated them as if they were really there. It's up to the viewer to decide if the visions are reality or if they're just in the characters' minds.'

Toying with the audience's idea of reality was exactly what the film's director was after. Since the Event Horizon's environment was already so extreme, Anderson feared that glowing visions would do little more than lend an artificial layer to something that was already unreal. "We wanted you to feel that the horror was right there in your face," he says. "There's no thin veil of dry ice between you and the nightmare."

This tactic is certainly effective in the soon-to-be-infamous scene in which Weir, driven mad by visions of his dead wife, rips out

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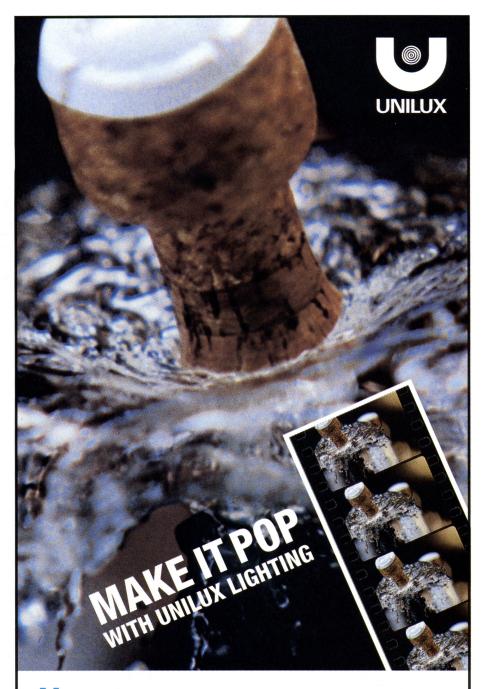
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his own eyeballs. Notes Anderson, "He's standing in a brightly-lit medical bay; he isn't lurking in the shadows, he's right there in your face. I wanted show as much of it as was humanly possible without getting an NC-17 rating."

There are other, powerful glimpses of what will happen to the crew if they make their way through the black hole's gateway and into a literal perdition. Perhaps the most disturbing vision of all is the appearance of "the Burning Man," a spectral representation of an individual Captain Miller was unable to rescue on a past mission. Instead of conceiving this grisly vision with an actor in a fire suit, Yuricich and Biddle combined several different elements. "We did several passes on the same set," Biddle says. "Sometimes we used motion control. I shot some of that, but we also had a bit of a second unit. The Burning Man involved a lot of different effects elements. To get the proper color saturation and not let it blow out, we shot the fire at f8 or f11. We had to lighten it up a bit, but it's a really amazing composite."

The fire almost got a bit out of hand, however. "Setting fire to things is tricky," Biddle says. "We nearly burned down the First Containment set! It didn't all burn down, but we had a bit of an insurance claim. We had to clear out of the Bond stage and move on to

something else."

The cinematographer maintains that he is actually most content when shooting under lessthan-hospitable conditions. While Event Horizon was one of his more challenging assignments, the cameraman says it was less complicated than the Neil Iordan film he shot on location in Ireland last summer. "Even though The Butcher Boy will look like it was an easier movie, it's set in 1962, and it had to be absolutely real. We did a lot of evening and day scenes in this little two-up and two-down house. The huge *Êvent Horizon* set on the Bond stage was great. It wasn't easy, because everything was so big, but it was actually easier working in that set than it was working in a really small house where a family is having an evening sing-song."





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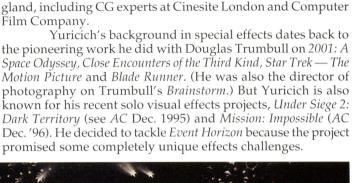
#### **Scare Tactics**

A blend of traditional and digital effects enhance the horror in *Event Horizon*.

by Ron Magid

Clockwise from top left: Stunt double Mark Newman (as Cooper) heads through the First Containment; an overhead view of the Second Containment: a section of the Lewis & Clark's exploded hull is shot against greenscreen on Paramount's Stage E.

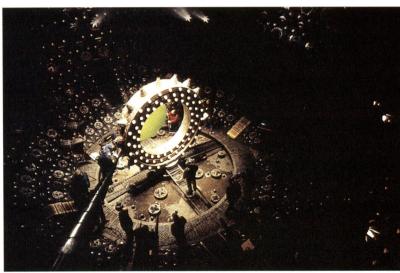




irector Paul Anderson's hybrid science-fiction/horror film, Event Horizon, demanded 250-plus effects shots, running

the gamut from the stars, planets and spacecraft of one genre to the abhorrent nightmare-inducing visions of the other. Pulling it all together was visual effects supervisor Richard Yuricich, ASC and visual effects producer Stuart McAra. The

duo oversaw some 400 craftsmen and artists working in En-





Both of the film's spaceships — the 250' Lewis & Clark and the mile-long Event Horizon were created using models in several scales. There were 26 miniatures in all, ranging from a 1' version of the Lewis & Clark (which resembles a submarine crossed with an ambulance) to a 30' long model of the Event Horizon. Yuricich notes, "Our problem was how to film something at that scale and get people to buy it. The answer was to put our 1' Lewis & Clark together with our 30' Event Horizon in the wide shots to establish the scale."

Scale issues of a different kind plagued Yuricich and company when a dynamic zero-gravity rescue sequence (dubbed "Miller's Crossing") was rewritten after the miniatures were constructed. In the scene, Captain Miller (Laurence Fishburne), who is do-

Event Horizon
Con Air
Amy Foster
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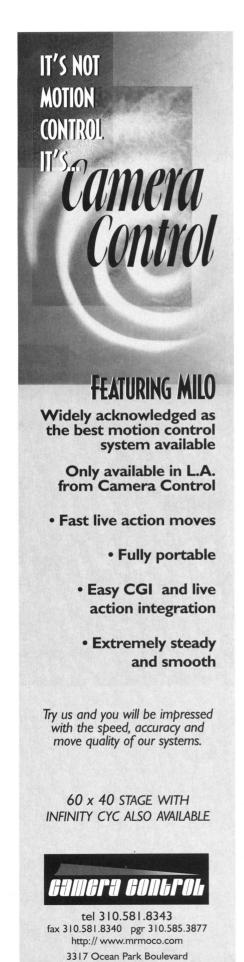
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Bottom row, L. to R. Braveheart @Paramount,



ing a spacewalk on the tail of the *Lewis & Clark*, crosses to the *Event Horizon* in time to rescue the suitless Justin (Jack Noseworthy) as he erupts into space from an airlock. "In scale, Miller probably travels over a 300' area," Yuricich observes. "We did many cuts of him traversing the outside of the ship on the center section, which is between the five 3,000' long corridors that connect the tail to the crossbeam containing the bridge and the three Containment chambers."

In the toughest of these shots, which were added at the last minute, the camera rotates within the ship's five columns as Miller rushes toward the airlock. After Fishburne (in his 65-pound spacesuit) was photographed against greenscreen on a portion of the Event Horizon set, Yuricich had to duplicate those same moves on a ½-scale miniature of the ship's corridor section. He explains, "The live-action motion-control shot started with the camera upsidedown and mounted on a Gazelle motion-control arm, going through about a 165-degree move with a wide-angle lens. We then repeated the same 165-degree rotation with the same Gazelle arm in the 1/72scale miniature — but there was no room to get a camera in! The five corridors formed a pentagram shape, so when the camera was inside there, we had a couple of columns in our way. It was too costprohibitive to build another model, so we cut the miniature in half to allow the camera magazine to fit as it rotated. It was really an obstacle course, but [motion-control director of photography] David K. Stewart [ASC] shot it in two passes. In the end, a live-action, 1:1 man appears to dive down through the columns and run on the inner surface of the five corridors. It's not real, but it looks cool."

Yuricich also helped to enhance the more horrifying aspects of the story, which occur after the *Lewis & Clark* crew boards the *Event Horizon*. The effects wizard worked in conjunction with both Pauline Fowler's Animated Extras and Bob Keen's Image Animation, using special makeup effects and animatronics to design nightmarish visions and ghastly

demises. Makeup effects coordinator Joseph Ross served as go-between for the visual effects and prosthetic sides of the production.

In fact, Yuricich orchestrated such a horrible end for Lewis & Clark emergency technician Peters (Kathleen Quinlan) that the MPAA objected. He explains, "When the young lady falls to her death from the top of the fishbowlshaped Second Containment into the metal grating below, I suggested that it should look like one of those gags where a body falls onto a car and you suck the roof down to show the impact. When the grating cracked up on impact, it was so dynamic it caused some problems with the ratings board."

The gag was achieved using a dummy of Quinlan and a full-body prosthetic worn by the actress. "We pre-rigged the stage floor so it would crack on impact when we dropped the dummy on a wire," Yuricich says. "Then, keeping the same camera position, we replaced the dummy with Kathleen."

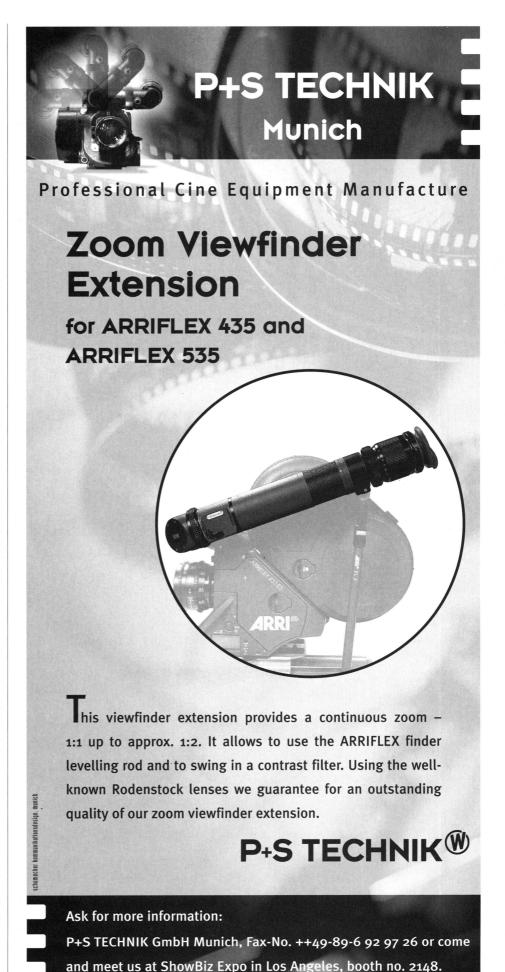
But the live-action element was only the beginning for Yuricich's crew: "We did a stitchup and track in digital for the drop from the ceiling. We had to finish the Second Containment [in the computer] because even the 007 Stage, which was 65' high, wasn't large enough. Paul wanted the set to go about 10' higher, so we hung greenscreen and silly pieces of green paper between the rafters up above. Then Michelle Moen [*Ālien*<sup>3</sup>] painted the elements for CFC to complete the ceiling. She's an oil-trained matte artist who was an assistant to my brother, [matte artist] Matthew Yuricich, before taking to the computer.

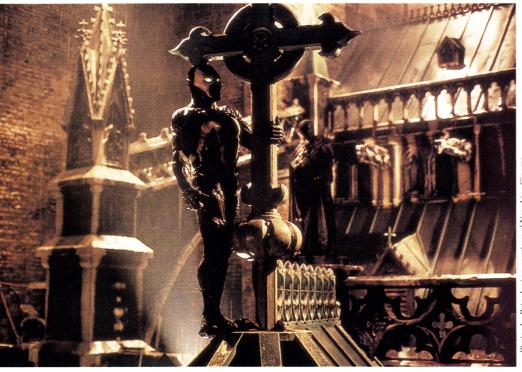
"Later, we digitally removed the wire and tracked Kathleen Quinlan's face onto the dummy. On set, we put her on a stretcher, and filmed her face as we raised her up through the actual stage lighting. That took five minutes. It was very low-tech, but it gave us an excellent 2-D reference for re-creating the lighting on her face digitally."

An even more involved digital tracking job was done to enhance the sequence in which

Weir (Sam Neill) blinds himself. Although audiences are spared the actual eye-gouging experience, Neill goes through much of the film eyeless, courtesy of Bob Keen's prosthetic makeup and Yuricich's digital sockets. "We had Image Animation drill little holes in the center of each eve in the fleshy, bloody prosthetic device attached to Sam's face. Then we added a white circle, like a bullseye target, around each hole, and those were the tracking points. At Cinesite, we built a little 3-D CG model of a head with no eyes in it, and generated a fleshy eyesocket with a bit of fat tissue and little veins. Once we knew the interocular distance between Sam Neill's eyes, Cinesite could easily track our digital makeup to those little white bullseyes on the prosthetic. In the end, the eyes look gouged out and you can see into his head. Sam performed with an approximately 120-degree field of view while wearing the eyesocket appliances."

Another remarkable "vision" was the Burning Man, a haunting specter from Captain Miller's past. Originally, Anderson, Yuricich and [motion-control and systems supervisor] Mark Weingartner planned to use an elaborate, £60,000 robot to achieve the effect of a character whose epidermal layer was forever on fire. But after some budgetary belt-tightening, they were left with £5,000. "Image Animation built a mechanical man that was moved with strings and sticks, which we covered with fabric and then burned to make elements," Yuricich says. "We burned the body in sections, and then applied those pieces digitally to an actor in a burn makeup so the character wouldn't look like a flaming matchstick. We had various layers of flame. We also did a shot of the Burning Man walking in a tank of water, using robot legs. The element photography for this sequence was executed by Weingartner and his crew. We did multiple passes with the tank, the legs and some steam. He's only on for a few frames, so it looks pretty cool. It was 50 percent of the original plan, but it worked."





cently brought to life as an animated series for HBO.

The \$43 million New Line Cinema film version of Spawn also presents the tale of Al Simmons (Michael Jai White), a government assassin who has been betrayed and burned alive by his own topsecret agency. As he dies, Simmons can think only of the love he has for his wife, Wanda (Theresa Randall), and he makes a Faustian bargain for another chance to see her. The duplicitous powers of darkness grant Simmons life, but return him to Earth as a disfigured hellspawn endowed with amazing abilities that will allow him to be the leader of Hell's army. Spawn is then relentlessly tested, particularly by the similarly empowered Clown (John Leguizamo), an obese killer in greasepaint. Clown can transform at will into Violator, a hulking demon who is both Spawn's companion and nemesis.

Above: Spawn lurks within the cathedral set built at Raleigh Studios. Says gaffer David Lee, "This set was built to the perms, leaving us with only about 10 feet above the grid. We were supposed to give it night and day looks with constant rain and smoke effects. Because of the tight space, we used smaller units, like Source Fours There were a Int of those above and hidden in the set to add pieces of light here and there." Bottom: A panel from the comic, featuring Spawn and his

"C pawn was presented to me while I was still shooting The Long Kiss Goodnight," remembers director of photography Guillermo Navarro. "I had a meeting with director Mark Dippé and producers Clint Goldman and Alan Blomquist in a room where the walls were covered with storyboards detailing all of the movie's visual effects and action scenes. Shooting a story based on a comic book was something I had never approached before. And the world of Spawn doesn't belong to reality at all, so everything could be treated as having its own reality. That was something I really wanted to try."

The Image Comics title *Spawn* is the creation of writer/illustrator Todd McFarlane, a 36year-old native of Calgary, Alberta, Canada who honed his skills on such Marvel Comics titles as The Incredible Hulk, Daredevil, G.I. Joe and Amazing Spider Man. The first issue of Spawn sold 1.7 million copies, and thus became the bestselling independent comic book of all time. Since its debut, the title has sold over 55 million copies worldwide. The saga's characters have been transformed into a very successful line of action figures, and its narrative was re-

#### Heroics from Hell

Spawn director Mark Dippé and cinematographer Guillermo Navarro adapt a best-selling cult comic book drenched in darkness.

by David E. Williams



Todd McFarlane Productions. Us

demonic creator,

Malebolgia.

The Spawn character is distinctly different from other comic-book icons. He is the only superhero to get his powers directly from Hades, and his adventures are graphic and decidedly adult in nature. Asked about the prospect of seeing his creation come to life on a 60-foot movie screen, McFarlane exhibits an enthusiastic excitement. "This is the first time I can force people to focus on my creations for an hour

tive years "I was swept away by the powerful narrative of Latin American authors like García Marquez, Borges and others. And it was through this that I knew I wanted to be part of the process of telling stories through images: I knew I wanted to 'become' a cinematographer.

"I briefly became an assistant cameraman, but I was terrible. What I did learn was how to deal with a crew; I would never put

slated to shoot the film. "That film didn't happen, but Ricardo had a very strong influence on me," says Navarro. "He became my mentor and teacher. When he shot the film Providence, directed by Alain Resnais, the camera union there had a program for directors of photography to take aspiring cinematographers on the journey of making a movie. Ricardo brought me very close to the process. I learned how to prep, how to define the concepts behind what the movie should look like, and how to time dailies — things you'd never do or learn anywhere else."

Asked if any other cameramen have inspired him, Navarro cites Vittorio Storaro, ASC, AIC, explaining, "He is one of my strongest influences, in terms of how I think about my work and try

Far left: Spawn rides his cycle through warmly-lit nighttime streets. Lee notes. "We lit probably half a mile of road, but because of the sort of noir style we were going for, we could have pools and dark patches." Left: Clockwise from top left, operator Allen Easton (behind camera), gaffer David Lee, key grip Rick Stribling, first AC AI Coen and cameraman Guillermo Navarro



and a half and then see if they 'get it,' if they care, if it makes any sense, if it's gutsy enough, or if we wimped out."

Guillermo Navarro's career path has been as unusual as McFarlane's. Born in Mexico City, Navarro took up still photography as a teen. By 14, he had found a creative outlet, and his hard work and talent also provided him with economic freedom. The tragedy of his father's death gave him the passion to excel at his craft. The cameraman reasons, "In order to survive, I had to grow up fast. Photography was my companion in that process."

Navarro's sister Bertha later gave him his first look at filmmaking by hiring him as a unit still photographer. He explains, "She produced a film called *Reed*, *Mexico Insurgente*, the story of [American Socialist] John Reed and the Mexican revolution." Shot in black-andwhite 16mm, the picture went on to earn the Best Foreign Film Award at the Cannes Film Festival.

During those same forma-

anybody through the situations I had experienced.

"Today, I have a very good relationship with my crew, and I'm very grateful to them. My most valuable players have been my key grip, Rick Stribling, and my gaffer, David Lee. I've done all my American movies with them and they're good friends. They had worked together before meeting me, and I've learned a lot from both of them."

After his brief tenure as an assistant, Navarro began shooting documentaries. It was during that time that he felt a need to travel and experience new things. He recalls, "I decided to go to Europe. I was in London for a while and took some workshops at the National Film School."

Later, in France, he joined up once again with his sister, who was attempting to produce a feature based on Malcolm Lowry's novel *Under the Volcano*. Navarro was introduced to cinematographer Ricardo Aronovich, who was



to build it into something emotionally connected to the story of a film." The cinematographer also singles out Gordon Willis, ASC as another primary influence, and additionally mentions two contemporaries. "Darius Khondji [AFC] is so involved with creating new things; he has shown me that not everything has already been done. Another cameraman I admire is a colleague from Mexico, Emmanuel Lubezki [ASC]. I respect them both."

Navarro's subsequent return to Mexico was a sobering one. He recalls, "The camera union was completely closed, and it was impossible to get work. Ricardo later came there to shoot *Missing* for Costa Gavras. I was the only guy he knew in Mexico. But because of my situation with the union, I wasn't able to work with him."

Navarro was only able to practice his craft by working outside the establishment. He explains, "The first movie I shot was part of an experimental film com-

petition. It was called Love Around the Corner, which earned me an award for best cinematography."

After working on several small non-union features, Navarro had the opportunity to shoot the film Cabeza de Vaca. Set in 16thcentury Mexico, Cabeza follows a Spanish conquistador who surrenders to the indigenous culture when he is held captive by a group of Indians and begins to understand their world. To create a sense of naturalism accurate to that period, Navarro lit his night scenes exclusively with fire.

During the production, Navarro met Guillermo Del Toro, then a special effects makeup artist who wanted to direct his own script for a horror film called Cronos. He eventually invited Navarro to shoot the project, a nontraditional tale of vampirism that added several kinks to the familiar lore. Atmospheric, shocking and humorous, the film was a smash hit in Mexico, won the Critic's Award at the Cannes Film Festival, and also received critical attention in the U.S. "Cabeza and especially Cronos were my first opportunities to have my work seen here," the cinematographer recalls.

In short order, Navarro connected with American director Robert Rodriguez, who asked

him to photograph Desperado, a 35mm sequel/remake based on El Mariachi, the director's lowbudget 16mm breakout movie. Navarro shot the picture in Mexico with a Mexican crew, and now considers the hyperkinetic film to have been a great learning experience and a turning point in his career. "Robert's energy is infectious and he enjoys collaborating and creating visually interesting images for the screen," Navarro remarks with enthusiasm. After teaming with Rodriguez again on the action/ horror film From Dusk Till Dawn and a segment of the anthology picture Four Rooms, Navarro collaborated with director Renny Harlin on the big-budget action film The Long Kiss Goodnight.

Prior to shooting Long Kiss, Navarro joined the Interna-

"They welcomed me immediately. It was completely different from my experience back home, and I'm happy to be with them." Asked how his background prepared him to work on

major films in the U.S., Navarro notes, "In Mexico, I had to work with fewer technical resources. But I came away from that experience knowing how to make films without large amounts of equipment. I also learned to place greater emphasis upon forging close relationships with the director and the actors. The Long Kiss Goodnight was one of the strongest examples of this kind of relationship. Renny Harlin and I were both very committed to establishing a unique style to tell the story, while over-

tional Photographer's Guild,

IATSE Local 600. He reports,

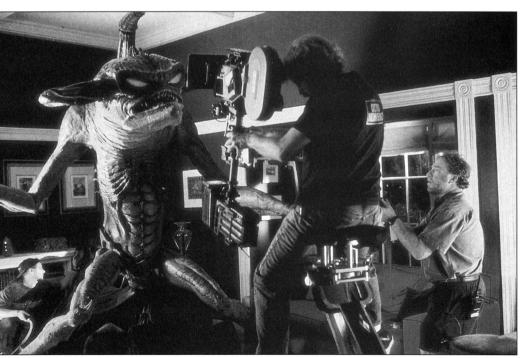
coming the size of the movie. That was part of my job, and he was more than willing to help me."

AC first encountered Navarro and Spawn during a set visit while the production was shooting nights at the Los Angeles Museum of Natural History. The location was a marble-

columned rotunda chamber with an impressively high domed ceiling, dressed for an elegant banquet scene featuring many extras clad in tuxedos and gowns. But from the look of the place, a bizarre battle royale was also shaping up: food, dishes, tables and chairs lay shattered and strewn in all directions.

After the scene's crowd of actors and extras was assembled, filming of the scene began in earnest. The banquet guests gasped and pointed to a balcony some 30 feet above us, where a brutal fight had ensued between a female assassin (clad in futuristic black leather garb) and Spawn (whose misshapen flesh and outré costume of skulls and metal chains were hard to miss). After a brief tussle, Spawn smashed his fist into the assassin's face, sending her crashing into the balcony's polished metal railing. The lopsided bout





Dippé (in cap, aesturina) offers some direction to costars Michael Jai White (clad in KNB Effects' Spawn suit) and D.B. Sweeney (far right) while shooting at the Museum of Natural History in Los Angeles. Below: KNB's animatronic Violator takes a swing at the Steadicam and operator Dan Kneece. Warm gels and flicker effects create a surreal firelight in this scene.

Top: Mark

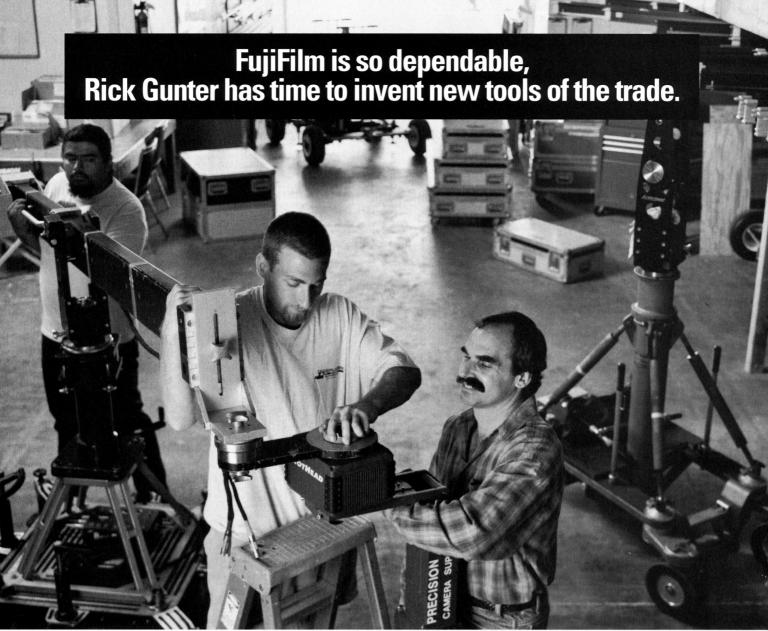


Photo: Michael Bulbenko. Film: Fuji Professional Neopan 400.

Most people like to get away from work now and then. Director of Photography Rick Gunter spends his off-hours outside the "Beverly Hills 90210" set developing new tools for...the set. What started as a hobby for the second-generation DP has become a successful business. Gunter, his son Brian, and key grip partners in Precision Camera Supports, use their knowledge as working pros to dream up more efficient camera supports, car mounts, and grip stands.

Their latest product: a new tracking system for remote heads that will be easier and less costly to operate. "It's all fun," says Gunter. It's also about having the best tools.

For this DP, that includes FujiFilm. In night shots, by firelight, on a high-contrast beach, "Fuji comes through," Gunter says. "It maintains details and looks wonderful." And because it's so consistent, he doesn't have to waste time worrying about performance. Weekends he can stay home — and draft ideas on how to make things work better.

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Rick Gunter's DP credits on FujiFilm include 90210, Pier 66 and Winnetka Road, all for Aaron Spelling. His other series include Home Fires, Dallas, and St. Elsewhere, on which his father was also the DP.



FUJI PROFESSIONAL MOTION PICTURE PRODUCTS Negative, Intermediate. Positive Print Stock Clown (John Leguizamo in heavy prosthetic makeup, courtesy of KNB) leads Spawn to his own grave. Says Navarro, "In that scene we created what we called a 'teletransporting' light, a megagreen light that the characters can use to travel from place to place. While this effect might be digitally enhanced, I think it will primarily be done via the lighting." Notes Lee, "We edged the actors as much as possible, lighting through the trees. We used a tiny bit of fill, as well as an array of six Lightning Strikes units. The larger ones were up on lifts, and a few smaller ones were on the ground. We chose a particularly nauseating fluorescent green gel for a Lightning Strikes unit placed directly above the actors, pointing down. We left the other units clean."



ended with the sudden cry of "Cut!" by the film's director, Mark A. Z. Dippé, who had been observing the scene on a tiny pair of black-and-white LED-screen Watchman TVs taped to a makeshift stand.

Spawn marks the featuredirecting debut of Dippé, a veteran special effects expert whose career at Industrial Light & Magic coincided with the dawning of the digital era. Raised in Alaska, he began his career working on experimental film and video projects. Says Dippé, "I was accidentally introduced to computer animation in the late Seventies when George Lucas brought some of its inventors to the San Francisco Bay Area to create the first digital film facility [which eventually became PixarJ."

Dippé was one of the most experienced CG animators in the field when ILM began work on the 1989 film *The Abyss*, one of the first features to showcase CG effects. His other ILM credits include work on *Ghost*, *The Hunt for Red October*, *Terminator 2: Judgment Day* (as the assistant visual effects supervisor), *Jurassic Park* (visual effects co-supervisor), *Rising Sun* (visual effects supervisor) and *The Flintstones* (visual effects supervisor).

Despite the opportunities at ILM, Dippé ultimately found the work to be creatively limiting. "ILM is a special place in that we were able to work on these very large movies. Steve Williams, Clint Goldman and I were all attracted to

that. That's one of the reasons I was able to stay there; we were creating moving images that people hadn't seen before, and it was exciting. But we were not allowed to originate our own films. ILM cannot produce films. There was some frustration there because a lot of us — including Steve and Clint wanted to be filmmakers on our own. Honestly, depending on the project and the director, we were sometimes given a lot of creative freedom, but that didn't always satisfy our own creativity. There's also a certain Lucas oeuvre at ILM, and not everybody wants to do that kind of film. So it's a doubleedged sword, but I always had the idea to do something on my own when the right thing came along."

The chance to direct Spawn proved to be an irresistible lure. "It's the story of a man fighting to save his soul," Dippé says. "Spawn faces situations involving the cruelty of life, street crime, corruption in politics, and the fact that the military industrial complex has no purpose anymore. These ideas are embedded in this very large mythological realm that harks back to older ideas about a world of gods that parallels our own. The angels and devils have their own foibles and weaknesses, they make their own mistakes, and they have their own jealousies, angers and violent tendencies. This world is fantastic not only in terms of the characters, spaces and laws of nature, but also in terms of the morality; it's a Dante's Inferno kind of

hellishness. The premise of *Spawn* presented the chance to create some very wild visuals."

The job of taking the phantasmagorical comic to the big screen was not an easy one, however. Dippé observes, "There's always this translation difficulty when you go from one medium to another. A book and a film are not the same thing, and they shouldn't even try to be. Todd and I talked about that quite a bit."

McFarlane submits, "I wasn't concerned with a literal adaptation. I never said, 'Hey, that's not how I draw things!' I was more worried about the attitude. When you look at the *Spawn* comic or HBO show, they're two different things, but the attitude is the same. It's rock 'n' roll. You have to play to each medium's strengths and find the consistencies. What's consistent about the Spawn character? That he's bitchin'! So we thought, 'Let's make a bitchin' movie.'"

In preparing for his feature directorial debut, Dippé sought to surround himself "with people who had been through this and whose aesthetic point of view matched mine. Guillermo had done some very stylish action work and darker dramatic stuff that I had liked a great deal. I had also enjoyed his older films, some of which were very quirky and surreal. His style of camerawork which had often involved using multiple cameras — was very strong, and he had proven that he could handle complex special effects setups."

In creating their overall visual style for Spawn, Dippé and Navarro did a significant amount of homework. "Guillermo and I studied many pictures, including all of the noir-style comic book and dark hero films, as well as films that dealt with fantasies and Hell," says the director. "In terms of fantastic surrealism, the filmmaker who influenced me most was Alejandro Jodorowsky [the Chilean director of El Topo, The Holy Mountain and Santa Sangre]. His movies are very bold visually; when I first became serious about film, Jodorowsky's work really tweaked me. Later, when I was working at ILM, I was able to see



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° Lucas Digital Itd. All rights reserved. Industrial Light + Magic is a registered Service Mark. Jurassic Park° 1993 Amblin/Universal. Casper° 1995 Amblin/Universal. Juman ji° 1995 Tri Star Pictures. Twister° 1996 Warner Bros. Dragonheart° 1996 Universal. Mars Attacks° 1996 Warner Bros. and understand the process of making a film like *T*2, which is a very rich and powerful sci-fi film embedded in reality. *Spawn* has elements of both of those influences.

"I didn't want *Spawn* to be a *cartoony* movie," Dippé adds. "Big-screen translations of comic books often rely on camp and kitsch value. Spawn is an edgy character, so I wanted to go for the kind of harder, more realistic feeling that audiences are probably more accustomed to seeing in a Jim Cameron science-fiction film."

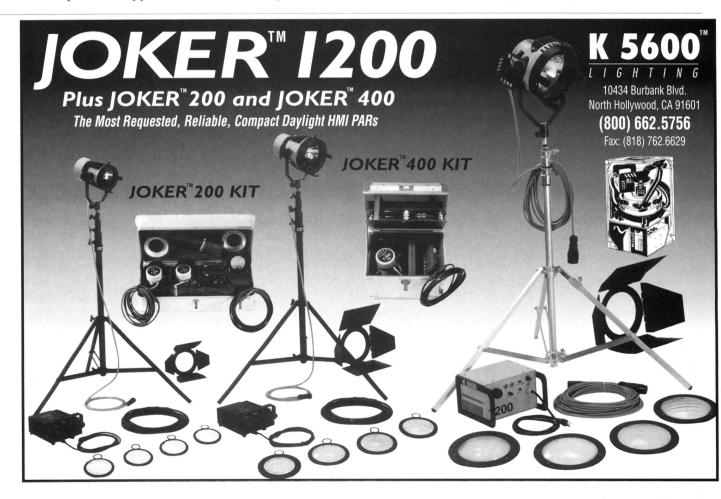
Navarro's approach to the picture's lighting stemmed from the story's fantastic underpinnings. "This film is totally contemporary, but it's also a fantasy world," he says. "For example, Spawn hides on the rooftop of this Gothic church and roams the alleys below, where this sort of underworld exists. I felt very comfortable in creating lighting that would be appropriate to the comic-book genre, and I basically treated Spawn like a period piece, in that the Gothic feel of the story, setting and characters suggested a particular approach.

"I don't have a lot of rules about lighting," he maintains. "Before we shot *Spawn*, I had discussions with my gaffer, David Lee, and key grip, Rick Stribling; we went through our 'baggage' of what we usually thought was good or bad, and reconsidered those things. We were trying to create our own reality with elements and codes that would relate to this particular story.

"To start with, I try to look at a location and see what it offers," he continues. "Then we block the scene and discover where I can accent the interaction between the characters and the setting. I ask myself, 'What are the pieces that are going to communicate the scene to the audience?' After that, I start building my lighting scenario. Practicals are part of it, so I work closely with the set decorator and look for opportunities to use them while we are scouting things. Sometimes you need to have a light coming in at a certain angle, but the frame shot will end up in a place that will reveal your source. Practicals will solve part of the problem."

As in his previous films, Navarro utilized an overall softlight effect on Spawn, based on his ideas about naturalism, using that as his starting point and then searching to find the appropriate visual grammer to express the film's baroque story. "The images I see are more often based on soft sources than on straight, direct ones," he says. "In cinematography, lighting is an artificial process used to bring reality to our eyes through film. The more artificial that process becomes, the further I am taken away from the reality of the moment we are trying to capture. When the process is simple, and the result connects to memories of things I have experienced in real life, I can relate to it. But something artificially lit, created with very strong direct lighting, pushes me away from exactly what I am trying to capture.

"I'm not against using direct sources, but I always process them through diffusion or anything else that will break that light up," he adds. "You find the same thing in nature. Beams of sunlight will pass through a cloud to create



a certain effect. Blinds on a window will affect things another way. Or perhaps the light will hit an orange wall, creating a spill with a warmer tone."

Warm light is a fundamental component in Navarro's technique, particularly in the way he creates nighttime lighting effects. "We often see scenes set in the middle of a forest at night in which a character will turn toward the camera and the blue highlights on his cheekbones are stronger than anything else in the frame," he says, illustrating his point about the distancing effect of artificialfeeling lighting. "We're expected to believe that this look was created by the moon, but that effect completely blows it for me, because the artificial process has reached such an extreme that I lose contact with what the film is trying to say.

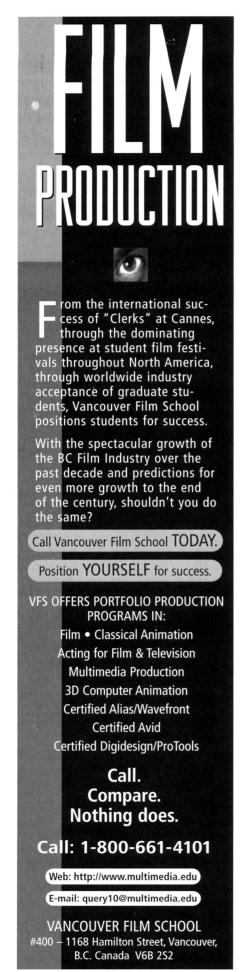
"I approach nights in a totally different way, and I think it's very much a reflection of the fact that I come from Mexico. I tend to go with warm textures and colors and very earthy materials in the art direction, and I incorporate much more sunlight into my palette." Gaffer David Lee, who developed his skills while working on independent films in New York City, adds, "In addition to the filters on the lens, Guillermo will always gel the lamps. For him, white light from tungsten sources is around 2,900°K, and we'll go down from there. He really likes straws and CTS."

This approach was taken to an extreme on Spawn during a scene in which Violator appears in Wanda's living room, amid a supernatural firelight effect. Recalls Lee, "The purpose of this set changed at the end of the shoot because of rewrites, so we had to scramble to come up with a plan to bathe it in this surreal firelight which was emanating from this mysterious, not even justified fireplace. We ended up building two 3' x 4' panels made of 100- and 500watt double-ended quartz tubes in reflectors — basically the kind of work lights you'd buy from Home Depot. We mounted them in a four by four array of bulbs, 16 on a panel run through flicker boxes going at different rates. We also had theatrical lights going into silver cards on flicker boxes, and lots of warm gels.

"Our filter pack was CTSbased, with a theatrical red. But because we had so many sources working as one, we didn't bipack them; instead, we just put a different gel on each bulb, which mixed things up a bit and gave the light a better texture. I remember going to dailies and being astounded by how different the colors were from what I'd imagined they would be. I've seen things that are shot really warm and then timed out until they're almost blue or white. Ultimately, warmth has a lot to do with timing."

Lighting Spawn's costume was a particular concern throughout the shoot. "Spawn is not a character like Batman, who switches from being a normal guy to being a superhero," explains Navarro. "Batman switches back and forth, and that switches the audience between fantasy and reality. After Spawn comes back from Hell, he is what he is and he *stays that way*. He's not wearing a *suit*, although the actor, Michael Jai White, was. In terms of lighting, it





was difficult to make that idea something the audience would readily believe."

Notes Lee, "KNB Effects, the company that did all of our makeup work and built the Spawn suit, took care of the eyelights in the costume, which worked very well, but we were always very worried about how the costume would read and how much light it could take.

"We had a couple days of testing for the Spawn suit, which was great, because it's the most important element in the film and everybody — Mark, Todd, Guillermo and the effects people had a different impression of how it should look. We had to find a common frame of reference. The knee-jerk reaction was to edgelight the suit because of the textures. That way, we could avoid lighting it from the front, adding a bit of mystery and drama as the eyes glowed. But we found that that approach was like lighting someone with bad skin — every now and then you could pick out a texture that you didn't want. It brought out the rubbery quality of the costume, revealing it as a suit. While we rarely used hard light anyway, our edge light was always diffused and almost always bounced. As we got into darker scenes, we could use more reflections, and that worked well, much to KNB's credit. Another consideration was that there was going to be so much done to Spawn in post; they were going to add this huge red cape and other effects." (See p. 54.)

Exposure levels were also a critical concern. Says Navarro, "I don't really like working at low stops; I like the light to be, to my eye, at a level where it doesn't look artificial or lit. Once I set the balance of things, I then figure out what the stop will be. I never say, 'I want an f4.' I light things to rescue the location, to discover what's interesting to me about it. If that ends up being an f2, then so be it. More important to me than the stop is the issue of where I want my printing lights to be.

"Choosing the stop also has to do with how much depth of field I want. If I don't want the backgrounds to play at all, I'll try to work at an f1.4 if necessary."

Even before Navarro joined the Spawn project, Dippé decided that the 1.85:1 format would be the best choice for the film. He notes, "Widescreen has all of its inherent problems in both production and post, which I wanted to avoid. I'm very accustomed to working in 1.85, and I've seen certain advantages in terms of the simplicity of working with it. I was torn, but I was worried about dealing with working at higher stops on a very effects-heavy film. I had to balance those requirements, and 1.85 was the obvious solution."

On location at the Natural History Museum, Navarro and his crew employed both Arriflex and Moviecam gear. "I learned my craft with Arris and I'm very comfortable with them," notes the cinematographer, "but on *The Long Kiss Goodnight* I also had a very good experience with Moviecams, so we used both on *Spawn*."

Many of the museum setups were shot from extremely high and low angles — facilitated by both the location's architecture and the production's Louma crane. Notes Dippé, "The comic-book style is one of visual exaggeration. We also used wide angles a lot, but they were often super-tight macro shots — just an eyeball, for instance. We relied on these extremes throughout the film."

Toward this end, Navarro found himself using wider lenses than he normally does "so that there would be a much stronger difference when the long lenses were used. We did a lot of Steadicam work with our 28mm, to the point where that lens basically lived in the camera. That became the lens for all of our moving shots.

"I basically stay with Zeiss primes, and I only use a zoom when I'm looking for a very specific frame or when I want to add a slow zoom in a camera move. I mainly use the SuperSpeeds, but I've also been using the SwingShift lenses [made by Century Precision] quite a bit, both on *Spawn* and *The Long Kiss Goodnight*. They are very good for when you have two actors in frame, because you can

hold the focus on both of them without having to resort to a split diopter. You can carry the dialogue without having to cut between them. On Long Kiss, I also did some coverage with normal lenses so viewers could really see the difference that the SwingShift creates; it can be used to provide more of a visual accent, making a certain look or line stand out. The SwingShift can also help tie the background-to-foreground action together, by establishing relationships between things. If I tried to do this with traditional depth-offield techniques, I'd have to build up the stop so high that the lighting would be completely out of character.

"On Spawn, we often used the SwingShift lenses to tie the characters in with the architecture, especially foreground elements. For instance, I don't necessarily have to show an entire living room set if I can see the arm of a chair in the foreground and then the character behind that — with both of them in sharp focus."

Navarro notes that image sharpness was an integral element

in bringing Spawn's edgy story to life. "I had used very heavy filtration on Desperado and From Dusk Till Dawn, but none whatsoever on Long Kiss; on that picture, I knew that I would lose a percentage of sharpness during the blow-up and squeeze to Super 35. Instead, I used the lighting to provide any softness that I needed, because I wanted to make the negative as pristine as possible. On Spawn, I followed that same approach. The stories in both Long Kiss and Spawn had a harder edge, and needed to be as crisp as possible."

This was also a concern, since the creation of Spawn's world would rely heavily on digital effects. But Navarro insists, "Digital effects are no longer a restriction to what stocks you can use. I usually used the new 5279 Vision 500T for nights, and 45 and 97 for exteriors. 5298 had been my choice for night exteriors and interiors for many vears. I learned to work with very low light levels while keeping the blacks black, so the transition to the Vision 500T has been a very natural one. I really don't do anything differently."

It was sometimes necessary to use VistaVision cameras for the film's effects work, however. Navarro recalls, "I didn't use VistaVision at all for The Long Kiss; we did everything with Moviecams. Of course, the registration had to be perfect and meet certain specifications, but we could do it with 4-perf. On Spawn, we sometimes needed VistaVision for both our location work and the bluescreen material.

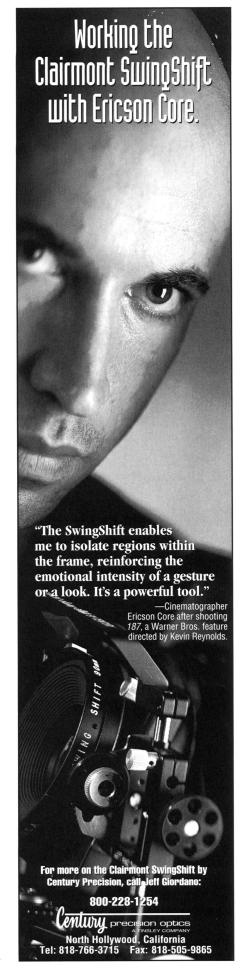
"ILM supplied us with an older butterfly-type VistaVision camera, and we learned to use it ourselves: it was not difficult. The only drawback was that the older Zeiss lenses they had were not fast enough, so the lighting had to be changed. We didn't use VistaVision that often, but when we did, those shots would often involve dolly moves, since motion tracking is now so easy to do. That was the main problem with effects in regard to camera movement just a few years ago. You could have a very kinetic scene, but when you got to the effects shot, you'd have to cut to a static, locked-off frame just so the visual effect could hap-



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pen technically. Now, the whole point is to add motion whenever possible."

Dippé adds, "In the end, VistaVision is *safety* — you have more resolution and can always blow things up or reposition them in post. If you really know what you're doing, it's less necessary, because 4-perf now works fine for digital special effects. But there were times when we were doing a very complicated shot and we either had to nail the setup perfectly, or allow ourselves to compensate later by shooting in VistaVision. That was a tradeoff we could make when necessary.

"It's funny," he adds. "After my first year of working with the VistaVision cameras at ILM, my impression was, 'God, these things are horrible.' But there are times even today, in the era of 'digital magic,' when VistaVision will save your ass."

Navarro adds, "Mark and Steve Williams had the effects portion of the film mapped out very well, which made it easier for me to deliver the elements they needed for their postproduction work. I think things went smoothly in this area because the director was also basically the special-effects supervisor. On other films I've had to deal with two people, which creates a triangle of decisions. Also, Mark knew not to do things in a way that would be unnecessarily expensive or time-consuming. But doing bluescreen work is always time-consuming, because the actors are interacting with things that aren't really there. This means you have to do extra takes for safety. When the post people are putting the puzzle pieces together, they need to have more choices, just in case the eyelines or any other things are wrong."

Considering the unique credentials and background he brings to his position as director, Dippé offers, "Digital special effects are just another set of tools in the filmmaker's bag of tricks, along with different lenses, cameras, film stocks, crane arms and all of those other parts of the filmmaking process. Because of my experience at ILM, the process is a bit more natural for me. I knew where we could

push things and be on the edge. Because effects setups eat up a lot of time and money, there were times when we could get away with stuff, like not having the camera locked off. We could also take some liberties with rigging, because they're so easy to remove. We even had more freedom with our lighting and exposures, although exposures are always an issue in effects work. Our practical special effects work — such as using the Violator animatronic puppet or doing explosions — was impacted minimally, primarily because those were difficult and often one-time setups. We had to prep some areas for hours beforehand, but even during shooting they required a certain amount of follow-through, especially when stunts were involved."

At the end of AC's visit to the Spawn set at the Natural History Museum, the crew began finalizing preparations for the big stunt of the night, in which the leather-clad villainess would plunge from the balcony to her demise. At floor level, a pyramid of champagne glasses was constructed atop a formation of cardboard boxes designed to break the stuntwoman's fall. The preparations, complete with multiple-camera setups, safety padding and several run-throughs, took hours.

Lee offers a rundown of the lighting used at the Museum rotunda site: "We were very restricted by the shots and the locations. The big setpiece of the scene is Spawn crashing through this huge skylight, and there was a weird mix of digital work and live action. In addition to being able to see all 360 degrees of the room, we could see 90 degrees up into the ceiling, so everything was designed to be looked at. Of course, we later thought, 'If everything is going to be done digitally, we can just hang an 18K straight down from the ceiling and have it taken out later.' But we didn't really do that very much. Personally, I can't stomach the idea of lighting in a way that would leave a lamp in frame for someone else to remove. About 60 percent of the time, on any shot, the best place to put a light is in the frame. A lot of the most beautiful and convincing sources are the ones that you sneak in there, and that's part of the challenge of our work. But if you can make something look that much better, why not take advantage of the option?

"Our solution to lighting the rotunda was to put a ring of about 80 evenly spaced MR16 Par cans — which I tend to be using a lot lately — all around the ceiling. They were directional enough so that you could point the camera at them without flaring, but they created a general, soft light because there were so many other sources. That's what we based the entire room on. It took two days to get them up and spaced and installed so they wouldn't do any damage to the structure. We also floated an LTM lighting balloon with eight 1K bulbs in it."

The centerpiece of the museum set was a large statue clutching a glowing orange sphere. Says Lee, "The statue was there when we got to the location, but we replaced the globe it originally held with this opaque ball, which we lit from within. It was a nice touch. There was track lighting installed around the perimeter of the room under the balcony and on the second floor; although it would have been a great backup, we ended up not using much of it. We just left the standard bulbs in.

"That was our overall illumination, but we also did a lot of bouncing into white and silver reflectors — often aimed through something else — to create sidelight. Unfortunately, the room is a circle, so it was tough to get a good sidelight on anybody. Once you get out of frame, you're not really at anybody's side anymore. You're more frontal."

Everything in the rotunda was run through dimmers in sections, including the practicals. Says Navarro, "I use dimmers when I can and when time allows it. Even if we're on location, I like to have all of the practical lights on dimmers. It's a better way to control the intensity of something, rather than using gels. I'll also use dimmers if I know that different levels of light are required on the same set, like the



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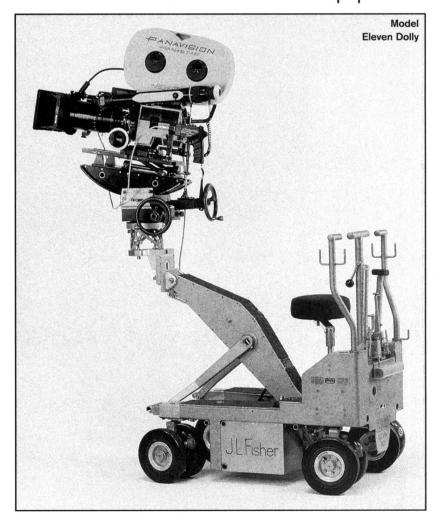


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range between dusk and night."

Adds Lee, "We tried to make the lighting in the museum as simple as possible. The great thing was that there were so many practicals and little bulbs that the overwhelming number of them created the right effect. So the lighting plan was dictated by the space and how we were going to shoot it. It was a beautiful space."

Just prior to the shooting of the museum sequence, the stuntwoman doubling for the villainess was hung from a steel cable directly above the crystalline pyramid, as she gripped a release cord that would drop her 25 feet to the target. As the cameras rolled, she twisted into a "falling position" and pulled the release. With a crunch, she hit the formation of champagne flutes dead-center, sending glass shards flying everywhere.

"That stunt worked beautifully, and it's so effective that we're having problems with the MPAA!" reports Dippé. The director found that one of his biggest challenges was in toning down Spawn's visceral impact to PG-13 levels. "The sequence works very well, and it's very pretty; I like stunts that have a sort of beautiful violence. But this was a hard movie to shoot. Once we got into the unreal elements of the story, every single shot involved this phantasm interacting with complicated effects. On top of that, we had scenes with little kids and dogs — everything you're warned not to do on your first film."

Navarro is currently shooting Quentin Tarantino's new film, Jackie Brown— a heist thriller based on the Elmore Leonard novel Rum Punch. "It's been a relatively short time since I moved to the U.S., and I don't want to be stereotyped into one style," the cinematographer says. "I want to be able to come up with the looks or the images any story demands, and have the opportunity to work in other genres."

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# Conjuring Demons for *Spawn*

A cabal of effects houses exploit both practical and digital techniques.

by Ron Magid and David E. Williams

Todd McFarlane's *Spawn* comic offers plenty of powerful graphics and in-your-face action — just the elements that former Industrial Light & Magic effects supervisor Mark A.Z. Dippé sought for his first directorial outing. It takes a twisted mind to bring a living-dead man to the screen as a superhero, so Dippé quickly enlisted his pal, former ILM CG supervisor Steve "Spaz" Williams (*Jurassic Park*, *The Mask*), to serve as *Spawn*'s visual effects supervisor/co-producer/second-unit director

But the epic scope of *Spawn* demanded more than the resources and support of the duo's effects alma mater. For backup in the CG arena, Williams enlisted two more firms: Santa Barbara Studios, which created the digital Hell from which Spawn returns, and Banned from the Ranch. He also hired KNB Effects (*From Dusk Till Dawn*, the mechanical crocodiles for *Eraser*) to execute the film's prosthetics work.

To convey the physical torment of Al Simmons (Michael Jai White) after he's burned alive and emerges from a boiling lava pit as Spawn, KNB created a full-body makeup that completely covered the actor's torso and extremities. White's facial features were altered via a grotesque seven-

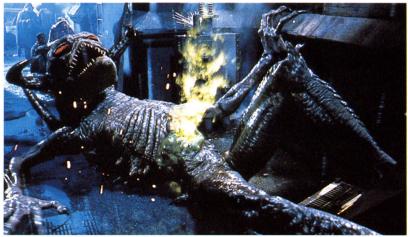
piece foam latex prosthetic burn makeup, which subtly evolves into a sleeker look after Simmons is transformed into Spawn.

KNB fashioned two versions of the Spawn costume. The first, dubbed the "rest suit," was more of a traditional muscle suit, a la Batman. The second, a "battle outfit," was covered with spikes, over which was stretched living "necroflesh" (a term Dippé coined to describe the striated musculature of Spawn's organic body armor). "The difference between the two suits is that of a clenched and unclenched fist," the director observes with glee.

KNB's most challenging task was creating a fully articulated 12' tall animatronic puppet of Violator, a demonic character with huge screaming jaws, red buglike eyes, a pencil-thin waist and spindly limbs. KNB redesigned McFarlane's Violator, bulking up its limbs to create a sense of physical power: the creature's head could move up and down and from side to side, its body could be raised and lowered, its arms moved and its hands could clench into fists. Violator's face was entirely radio-controlled and had two interchangeable jaws: a small one that could close and another with a gaping snarl for his final battle with Spawn. Explains Dippé, "A lot of our changes had to do with Violator's silhouette and how he would feel lighting-wise. I wanted a lot of his scenes to take place in



Above: Spawn's cape blooms blood-red as the character breaks through a skylight. Dippé determined that the expressive cape had to be created digitally after tests with various fabrics proved unsatisfactory. Right: A fullydigital Violator takes a hit from an electrode.



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a head turning, or a close-up on the spine as it emerges. Those kinds of things can be done very effectively in close-up, and you get the benefit of all of the details — the goo and the slime.

"When you have a wider shot and what I call 'free movement,' like a creature walking or leaping, and you can't hide the puppeteers or the cables, you run into problems. Our Violator character is 12' tall. How the heck are you going to deal with that? The entire creature is too big and too heavy to move. It could be done, but the complexity, costs and limitations you'd face would be too great. So in essence, the rule is, when you're tight and you can build an animatronic system, do it; when it's a wide shot, use CG."

Much of ILM's work involved transforming the "burnt" Simmons into Spawn and the char-

Above: Shooting on the effects stage at Hollywood **Center Studios** with KNB's Violator. Key bluescreen work was done by a second unit overseen by former ILM CG Supervisor Steve "Spaz" Williams and photographed by Jonathan Taylor. Says Navarro, "The decision between blue or green is usually up to the post house and what they prefer to work with, but in this case. green was in conflict with Spawn's glowing eyes." Right: The CG Violator prepares to take a bite out of Spawn in a scene designed to match the living room sequence shot by the main unit

darker, atmospheric spaces, which led to the treatment of his skin and the shape of his body. Once all of that was figured out, it was a matter of how he could work on film.

"That took many, many weeks of playing with drawings and sculptures. For example, in the comic, Violator's jaw is very long. Well, that looks silly when he's supposed to be roaring, so we changed the jaw's shape. We also added more bony protuberances to make him look nastier, and made him slimy instead of leathery.

"In terms of bringing Violator to life on the set, you have to understand the appropriate mix of practical versus post work with the creature. If you do it all practically, the setups are complicated, they take a long time to shoot and you'll be limited in what kinds of movements you can achieve. The advantage? It's all there in front of you. The lighting is there, the creature is physical and the actors can react to it directly. When you go to CGI, though, you're totally free in terms of movement and everything else. Creatures can leap in the air and burst through glass, et cetera. The disadvantages are that you have to think very carefully so that the things that happen on the set will relate to the monster being there. For example, if a monster is chas-



ing you, where does the camera look? Where do the actors look? You have to rehearse the shot with a stand-in of some kind — a head on a stick, for instance — so everybody will know where the thing is supposed to be. Also, when you get to postproduction, and you want to put your creature in the shot, the lighting has to make sense. Fortunately, [cinematographer] Guillermo [Navarro] had a very sharp crew, so it worked out very well.

"With all of those factors in mind, we wanted to use the practical creature as often as possible as long as it wasn't too complicated to set up. That meant tighter shots, like a jaw snapping,

acter Clown into Violator. These tasks were handled, respectively, by associate visual effects supervisors Habib Zargarpour (*Twister*) and Christophe Hery (*Eraser*) and their crews. Because he wanted the characters to transform in pieces, Steve Williams insisted on using far more imaginative and innovative techniques than traditional morphs.

Spawn's biomechanical transformation begins with a searing hot lattice of metal spikes emerging from Simmons' spine, covering his body, burning his skin and forming an armor-like shell. "I called his armor 'beef jerky," Zargarpour says, "because it looks

(see photo on

page 56).

like slimy, flexible burnt flesh." Spawn's head armor appears in much the same way, which required a complex CG transformation over a plate shot of the actor.

Readers of the Spawn comic know that McFarlane treats the antihero's crimson cape almost as a separate character — an expressive barometer of its wearer's emotions which, for example, turns jagged and ragged when he is angered. But how do you bring that effect to the screen? "The cape was something that Todd and I got into a lot," says Dippé. "Spawn's cape is amazing and beautiful, but we did not want to get into Dracula, Batman or Darth Vader territory a guy with a cape dragging along the floor. The cape is one of the coolest elements of the comic because it doesn't behave like a cape, and that's why people love it.

"If we have Spawn just standing there or walking around and there's no role for the cape, it's gone. The idea that Spawn's suit is a living organism is part of the comic book, so we just took that one step farther — the cape can emerge and retract depending on what Spawn needs to do. So Spawn's cape is almost totally digital. The complexity of the cape was just impossible to do any other way. We did tests with fabrics and puppetry, but I just couldn't have a guy walking down a hall with a cape hanging around his ankles no way.

McFarlane agrees, "In the comic and the HBO series, the cape is Spawn's visual signature. By making the cape more 'alive,' the costume has a more of an H.R. Gigeresque feeling than what we have in either the comic or the animated series."

Zargarpour explains, "Unlike in Mars Attacks!, where we solved the CG cloth problem by using hand animation to create the Martians' draping robes [see AC Dec. 1996], Spawn's cape had to grab and pierce things, and form all kinds of interesting, abstract shapes. So I decided to develop the cape myself by coming up with a genuine cloth simulation. We used a combination of techniques: first, the animator rough-positioned the cape by hand, then the simulation



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An artist's interpretation of Spawn's confrontation with Violator in Hell.

kicked in to give the cloth more of a life of its own as the cape moved away from Spawn's body. The results were so good, we decided to add the cape to every shot."

One of the toughest shots of the entire film was Clown's transformation into Violator. The change occurs during the course of a huge crane shot moving 270 degrees around the mutating Clown character; as the crane finishes its descent, it tilts up to reveal Violator. "The scene involves two entirely different characters of anamorphic size," Williams says. "I didn't want one even metamorphosis, so it's boom — the horns erupt; boom — the mouth grows; boom — the spines split up the back. We did it all in one long shot." Zargarpour says that choreographing each transformation individually made Clown appear to change "piece by piece, and it looks as real as it can.

While the Clown-Violator transformation took the course of the production schedule to accomplish, animating the wiry Violator was somewhat easier, thanks to some new tricks in ILM's digital bag. New "muscle-enveloping" software allowed animators to position muscles inside the CG character's body, enabling its CG skin to slide over them. Meanwhile, the Caricature software created for Dragonheart permitted animators to create facial expressions and breathing movements interactively. These same techniques also made Spawn himself the closest thing to a CG human ILM has yet created. "We're getting some [lifelike] shots that are starting to look very eerie," Zargarpour admits.

Violator and Spawn engage in a series of violent encounters throughout the film. Williams was determined to push ILM's digital artists to the limit to show the impact of each confrontation on the characters. "There are tons of battle sequences, both in Hell and on Earth, but we had to show these two guys fighting," he says. "Spawn and Violator have certain magical qualities. When they get shot, their wounds immediately heal — it's an old gag we've been doing since T2, so we're trying to put a different spin on it. In one shot, a truck smashes into Spawn; his foot literally becomes embedded in the asphalt, and it has to transform back into a part of him. Instead of just doing linear transitions, like from top to bottom, we handled the transformation in big wedges

"During these battles, I also wanted to do shots that had 'temperature.' We've been doing CG character effects for years, but there's never been a sense of temperature in those shots; the aweinspiring aspects of those scenes have always simply stemmed from the fact that the character is there and doing something. So in Spawn, I either made the shots really cold or really hot-looking, with lightning and sparks. We had one shot where Violator falls on an electrode, so I said, 'Let's make huge arcs of lightning come out of the electrode and hit his teeth and eyes. I want to see pieces of him get fried!' All of those elements make these shots look different."

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# Past Imperfect

Cinematographer Ashley Rowe, BSC lends a naturalistic look to director Michael Radford's B. Monkey, the tale of a young Italian girl whose checkered past finally catches up with her.

# by John Gainsborough

dark, dangerous love story drawn from a novel by Andrew Davies, B. Monkey concerns Beatrice (aka "B"), a wild, attractive young girl with a criminal past, and the romantic schoolteacher who becomes obsessed with her. In her confused rage, B (played by Asia Argento, daughter of Italian horror film director Dario Argento), spraypaints her name in graffiti all across London, and attempts to escape her past through the devotion of her lover. Inexorably, however, B finally becomes ensnared by her troubled history.

When the B. Monkey pro-

duction company arrived at England's Ealing Studios last November, the facility had just been taken over by the National Film and Television School. The functional mix at the new school premises is an imaginative one, and the working stages — situated alongside studios for graduate filmmakers — have given the school an important sense of commercial realism. Indeed, one of *B*. Monkey's most dramatic scenes a jewelry store robbery gone chaotically awry — was shot there, with a two-camera setup designed to avoid the complication of re-

peated takes. But for the director, Michael Radford, and the lighting cameraman, Ashley Rowe, BSC, the time spent at Ealing Studios was a relatively short stint sandwiched between location shoots in England and France.

Prior to B. Monkey, Radford had directed Another Time, Another Place; 1984; White Mischief and Il Postino (which earned an Academy Award for Best Foreign Film and four other nominations, as well as a BAFTA Award for Best Direction). Radford shot portions of the latter film at the famed Cinecitta Studios in Rome. "I was very lucky



"B" (Asia Argento) and her paramour (Jared Harris) clinch in a classroom illuminated by warm, romantic source light.

to go from Cinecitta to Ealing — both are classic studios of European cinema," the director says.

B. Monkey's cinematographer, the 37-year-old Rowe, is one of a number of lighting cameramen who cut their teeth shooting BBC television dramas on 16mm. Rowe and his peers from this group — Andrew Dunn, BSC (The Madness of King George), Tony Pierce-Roberts, BSC (Disclosure) and Remi Adefarasin, BSC (Truly Madly Deeply), among others — acquired a reputation for skill, flexibility and an ability to work quickly under pressure.

Rowe began cultivating a love of cinema as a youth, when his

father took him to see 2001: A Space Odyssey at a local cinema in Wimborne. From that moment on, Ashley was "completely hooked" on the movies. "I was interested in still photography at that age, but after seeing 2001 I went home and sold all of my stills equipment,

bought a Super 8 camera and made short films with my school friends. From that moment, I knew I wanted to be a film cameraman. My initial ambition was to work on wildlife films, and I wrote to every BBC station in the country. They all said to come back once I had more experience."

His determination eventually paid off when he landed a job as a general trainee with a film production company in Southampton, making short films for the government's Central Office of Information. He began working immediately as an assistant cameraman and editor's assistant. This dual experience proved invaluable, and has given him an instinctive ability to envision how his shots will cut together.

Eventually, Rowe landed a job at the BBC as a focus puller. His previous experience served him well, and he quickly became a lighting cameraman, serving in that capacity for six years. Rowe's credits at the BBC included Screen 1 and Screen 2 films, and a striking



Clockwise from top: Fluorescent fixtures lend a moody feel to a hospital corridor; Ashley Rowe, BSC with the tools of his trade; low-key illumination enhances a shot of "B" within an elevator.



adaptation of the late Dennis Potter's final screenplay, Karaoke. After leaving the BBC, he lit a number of features, including Second Best (directed by renowned cinematographer Chris Menges, BSC), Widow's Peak, The Woodlanders, A Man of No Importance and Sister, My Sister. He brought to B. Monkey an experienced eye and a distinctive style, establishing an instant rapport with both Radford and production designer Sophie Becher. "Because I am an ex-BBC cameraman, I am probably known to be fast, but that can sometimes be a problem, because I would actually like the time to try different ideas," Rowe says. "With B. Monkey, we were very lucky and had a 12-week shoot, which was fine. I actually had time to do what I wanted and really play with the light."

The picture offered plenty of scope, with locations that included Central London, Paris, a tiny cottage in Cumbria's wild, windswept countryside, several trains and a hospital. The studio shoot consisted of re-creating the



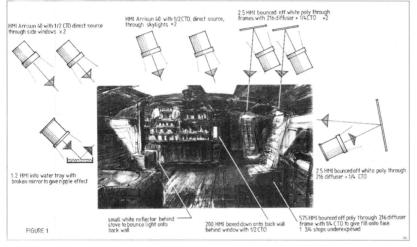
interior of a small boat, a Parisian apartment and the jewelry store in which the noisy bungled robbery takes place.

As is customary with British cinematographers, Rowe does double duty as camera operator and executor of lighting setups. On B. Monkey, he used an Arri 535B for the first time, equipping the camera with a full set of Zeiss primes (opting most often for the 35mm, 85mm and 100mm lenses). Zooms were available, but hardly ever used. Rowe did consider employing the new Zeiss variable primes, but decided that they would be too bulky for many of the scenes, particularly those involving Steadicam work.

The cameraman had previously shot *Second Best* with a Moviecam, and several other features with Panavision and Primo lenses. Prior to principal photography on *The Woodlanders*, Rowe conducted extensive tests of the Primo and Zeiss lenses, carefully switching the test films between two projectors at Technicolor. He says that he found no significant visual difference between the Primos and the Zeiss lenses, but adds, "The Primos really snap in and out of



Above: The interior of the houseboat set built at Ealing Studios: Right: A lighting diagram detailing Rowe's approach to the scene.



focus; I found the Zeiss primes to be a little more forgiving. The 535B itself is a very user-friendly camera — it's quick to use, load and lace up. In particular, it has a very clear viewfinder; that's one thing Arri has really improved. Being modular, the camera strips down fast for Steadicam work — an important factor on *B. Monkey*, because we used the Steadicam a lot."

Rowe prefers the realism of natural light sources, and often pushes this strategy to the limit. When working at the BBC, he always tried to endow the organization's dramas with a feature film look. "At times, I was criticized by the technical boffins [experts] who did the telecine transfer," he admits. "They said

[my footage] was always too dark and moody, but I just continued doing it because I felt that it was right. I stuck up for a style I believed in."

It was this uncompromising approach to photography which caught Chris Menges' eye and led him to ask Rowe to light Second Best. The cameraman was intrigued about working with Menges, and the symbiosis between his lighting and Menges' direction somewhat influenced Rowe's approach to B. Monkey. In the former film, Menges had to direct a young boy, and required absolute flexibility of movement. "Chris did not want to force the boy to hit marks, and he didn't want the room filled with lamps

and cables and stands with flags," Rowe explains. "He wanted to have the flexibility to follow the boy wherever he went on set, so source lighting really took over completely. That film was shot entirely on location; I used big lamps coming in from outside, and reflectors everywhere we could hide them within the interiors — white sheets on the floor behind chairs, or behind the door, and so on. That gave Chris the freedom he wanted with the actors. On B. Monkey, I lit in a similar kind of style. Michael Radford wanted realism, but we enhanced things just a bit."

Throughout the *B. Monkey* shoot the director took advantage of a black-and-white video assist; Radford set up the monitor near the camera in order to keep an eve on both the image and the on-set action. Nevertheless, the director does concede that he is a bit warv of video assist. Says Radford, "Like digital editing, I find that it often tends to force you into close-up, because that's what you see best [on the monitor]. I used the video monitor on this film much more than I have ever used it before. I like shooting wide, and having rushes, so cutting on film is still one of the best ways to go. My French editor on this film, Joelle Hache, absolutely refuses to cut on video."

Rowe found Hache's technique to be challenging, and as a result tried to anticipate the editing style while shooting each scene. "She liked the camera to move a lot, sometimes even to wipe off a character's face, and she would actually cut as the camera started to move. In every situation we could, we tried to move the camera to give the whole film pace. I have always worked with Kevin Higgins as my grip; he has the ability to move the camera instinctively, with very few rehearsals. Our Steadicam operator, Adrian Smith, makes Steadicam look like a dolly shot: the horizon never moves. It's a real art, and of course we could get the Steadicam into places where a dolly would never fit."

In addition to maintaining this almost constant camera movement, Rowe tried to capture every



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Above: An apartment sequence lit entirely with practical lamps. Right: Natural toplight adds romance to the classroom interlude.

scene in one take. The scenes throughout the film were short the longest was no more than three minutes long — and Rowe notes that in one case, four scenes appeared on the same page of the script. The filmmakers' approach to each sequence, however, was determined by the rehearsals. Rowe contends that this technique made the film more spontaneous, without restricting the actors' movements in any way. "Michael would rehearse with the actors initially, and I'd sit in the corner and watch," he relates. "Once they had rehearsed a scene, we would talk about ways of shooting it. We never really had any preconceived ideas about how a scene would be shot."

The cameraman lent a distinctive look to each locale displayed in B. Monkey. In Cumbria, where the production started, the filmmakers sought a cold and severe veneer. Almost everything was shot with a 1/8 coral instead of a full 85 filter on the lens to uphold this cool ambiance; Rowe instructed the labs to grade the footage for a colder tone, and to add cvan to provide a cvan/blue hue. For the London locations, which needed to be lively, colorful and diverse, he forsook lens filtration in favor of gelled lamps.

The filmmakers also maintained meticulous control of their palette for the costumes, deplayer's face, and he went to considerable lengths to ensure that this didn't occur on exterior shots as well. The director did want B to look attractive throughout the course of story. Radford had been particularly impressed with Rowe's photography of the lead actress in the television production Karaoke, and asked the cinematographer to emphasize Argento's natural beauty. Rowe submits, "I don't think I consciously glamorized Asia; she is only 22, and she has such a clear olive skin and photogenic face that she can take almost any kind of light. Again, I just used the natural sources that were already there, and controlled them to ensure that she would always look beautiful, but in a dramatic way."



cor and lighting. Radford comments, "We all conspired together to produce a very definite 'look' which is not a naturalistic look, but a movie look. We literally controlled every block of color within a frame. For example, when we were shooting against the green hills in Cumbria, Asia [Argento] wore an orange sweater; in a number of hospital scenes which were predominantly blue, we sometimes had a streetlight outside which would be orangey-yellow. The colors were provided by both the costumes and the lighting. This approach helped us to create a universe which I think is quite original."

In terms of the actors, Rowe never cast direct light on a

Several unexpected incidents impacted the production's location work. The last on-site shoot took place in Paris, and on the Eurostar train which was to transport the crew from London to Paris. A complete carriage was booked to facilitate the scene, but two weeks before filming, a disastrous fire ensued in the Channel Tunnel, resulting in its closure. The scene was salvaged, however, when Eurostar provided the production with another complete train and ran it from Waterloo (in London) to Ashford International (in Kent) and back, thus avoiding the tunnel itself. While filming this scene, the actors were placed on the opposite side of the train during the return journey, so that the apparent direction of travel would remain the same. Since Rowe could not draw any electricity from the train itself, he had to use batterypowered soft fill; fortunately, the favorable weather provided steady illumination from outside, a rarity in the typically overcast Britain.

As if these difficulties weren't taxing enough, French truck drivers decided to go on strike during this very same period. Hundreds of trucks from Britain and other countries were trapped in and around French ports, and at various roadblocks in France. In order to get its filmmaking gear to Paris, the production's unit truck had to be routed through Holland and then driven carefully

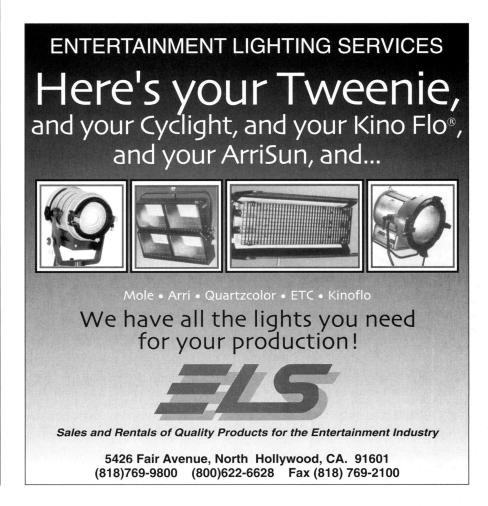
"Once Michael
[Radford] and the
actors had rehearsed
a scene, we would
talk about ways of
shooting it. We never
really had any
preconceived ideas
about how a scene
would be shot."

— Ashley Rowe, BSC

along minor roads in Northern France and Paris to avoid being trapped en route.

The film's various sequences aboard trains and cars stretched Rowe's ingenuity in other ways as well. Some of the scenes had to be shot on the London Underground, and the film's title sequence required shots looking out of the front of a train with images of rails, tunnels and cables. The lights on the front of the train were not powerful enough to illuminate these images, nor could the crew draw power from the train itself. The team solved the problem by attaching a small rig, equipped with two tungsten pulsars, to the front of the train. For added realism, the flashes from the train's pick-up shoe were simulated by large, magnesium-filled flash bulbs which could be fired off at will - mounted on the train low down









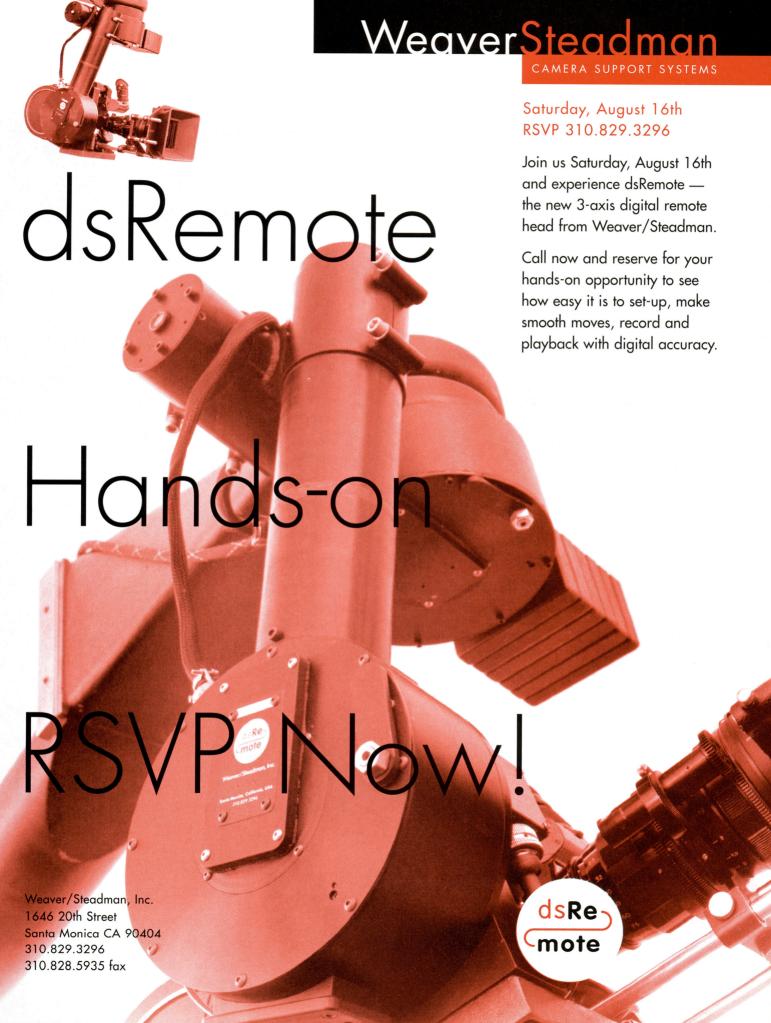
near the track. Earlier tests with electronic flashes proved unsuccessful, as the flash duration was too short; the older magnesium flash bulbs, which could provide flashes over several frames of film, were highly effective.

Fortunately, the train used by the production ran on an isolated section of the system between just two stations, which could be closed to the public. When the unit required a different train with much older rolling stock, it had to fit into the normal running schedule without stopping at the stations. These particular carriages were lit with fluorescents and small tungsten bulbs recessed in the ceiling. Once again unable to draw power from the train, Rowe managed to provide sufficient fill with battery-powered Kino Flos.

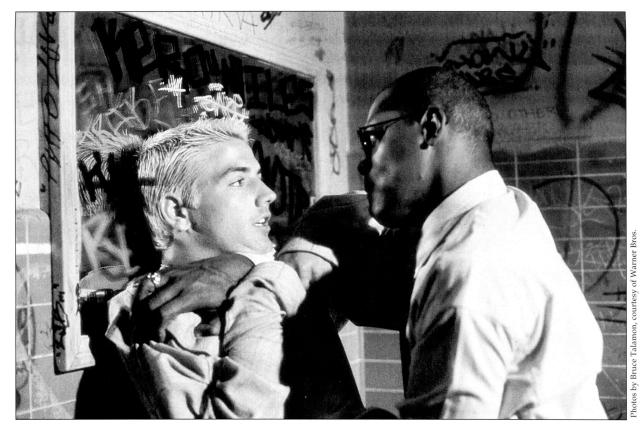
B. Monkey was shot in the standard 1.85:1 format since many of the film's locations were very confined; Radford and Rowe felt that 1.85 was the most practical aspect ratio for closer shots. Even the picture's car scenes were filmed inside the car itself, without the use of a low loader.

Rowe believes in using a minimum stop of at least f2.8 for close-ups. "If you are on a close-up with a stop of f1.8, then you may only have one eye in focus and the nose will look soft," he says. "On the big screen, that looks very, very odd, and for the cinema you need to have a fairly good stop just so that you have a face which is actually sharp all over. The depth of field at f2.8 is still very small, but that never presented a problem for our focus puller, Ian Clark."

Rowe shot the film on Kodak's 5248, 5293 and Vision 5279 stocks. The unit was filming right up until December, by which time England's exterior light was rather low. This necessitated the use of 93 for most of the end-of-shoot exteriors. As Michael Radford notes, "I always remember the light that Stanley Kubrick managed to get in Full Metal Jacket, which was shot in this country — that kind of very English, autumnal light. On B. Monkey, we had the good fortune to have sunshine in October and November, which gave us the very pale light that I like."



Frustrated educator Trevor Garfield (Samuel L. Jackson) has a one-on-one consultation with problem pupil Stevie Middleton (Jonah Rooney).



# School of Hard Knocks

Director Kevin Reynolds and cinematographer Ericson Core take a fresh perspective on the "urban classroom thriller" in the gritty 187.

## by Brandon Wilson

A primary challenge facing any director and cinematographer is to photograph people and places in a unique, relatively original way. Of course, finding a fresh angle becomes exponentially more difficult with each onscreen treatment of a given subject matter. Director Kevin Reynolds and first-time feature film cinematographer Ericson Core faced just such a situation when they teamed to shoot 187, a thriller set on the mean streets of New York and the sun-baked byways of Los Angeles.

The "187" of the title is a

reference to the police code for murder, and the film's story is nothing short of a modern-day tragedy, detailing a teacher's struggle to remain dedicated to his students in a world that's decaying around him. The tale begins in a high school in Brooklyn's Bedford-Stuyvesant neighborhood, where science teacher Trevor Garfield (Samuel L. Jackson) is committed to putting himself on the line for his students and his profession. But Garfield's irrepressible drive is answered with violence when he's stabbed a dozen times by a

student whom he has given a failing grade. Garfield survives, relocates to Los Angeles and begins subbing at a high school in the San Fernando Valley, where his reputation precedes him. Some of his fellow educators, like the loutish Dave Childress (John Heard), view Garfield as a martyr in the name of a system needing reform. But to others, like Ellen Henry (Kelly Rowan), he's a haunting symbol of a teacher's vulnerability in an era where metal detectors are a common sight in the American high school.

Garfield also finds himself caught between delinquent pupils and an administrator more concerned with his political future than with supporting his teachers or serving his students. As the science teacher adjusts to his new environment, he slowly rediscovers his love of teaching, and even takes special care with those students worth helping. It is soon noticed, however, that some of the school's more dangerous teens are meeting with unkind fates, leading other teachers to wonder if Garfield's injuries, and his disenchantment with a failed system, have pushed him over the edge.

Written by Scott Yagemann, a one-time teacher and seven-year veteran of the Los Angeles public school system, the script for 187 landed in the hands of director Kevin Reynolds, whose credits include Fandango, The Beast, Robin Hood: Prince of Thieves, Rapa Nui and Waterworld (see AC August '95). As most of these prior pictures were set in either the days of vore or in the distant future, the filmmaker was intrigued by the prospect of a character-driven piece firmly grounded in modern realities.

Seeking a fresh visual approach to 187, Reynolds surveyed the ever-expanding world of music videos for a talented cameraman. "I was wide open to ideas, because I didn't want this film to look like anything I'd done before," says Reynolds. "I hired Ericson Core because I wanted to work with someone brand-new. When I saw his reel I was really impressed. I'd wanted to use focus as a stylistic device to say something, and I liked what he'd done with focus techniques in a lot of his music videos.

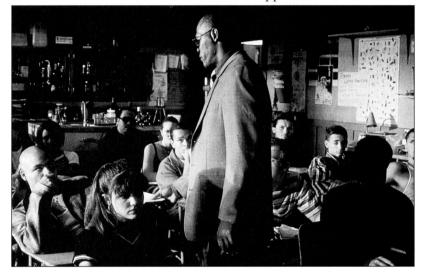
With over 100 videos to his credit, as well as an extensive



background in commercials, Core was as seasoned as any freshman cinematographer could be. The Laguna Beach native earned BFA and MFA degrees from the Art Center in Pasadena, California, and a BA from USC Film School.

Core says that his lack of feature film experience turned out to be an advantage in his close collaboration with Reynolds. "My reel is, for lack of a better term, on the arty side," the cameraman admits. "That's what I like to present of the work I've done; it's a little more abstract. By picking me as his director of photography, Kevin showed me that he wanted to

move in a different direction. We didn't want to make a stereotypical story, especially since the film touched on a lot of issues that could easily be seen that way. We wanted a different perspective. Kevin felt that the story wasn't just about a teacher fighting back, but the story of a man's 'inner death' — how he gets to that point, and how society and the system slowly bring him down and leave him with no safety net. Kevin and I talked a lot about human nature and what a character like that would go through, and those discussions led us into the visual approach we took."



Left: Garfield states his case to a new crop of wary students. Below: During recess. Garfield has a heart-toheart talk with concerned colleague Ellen Henry (Kelly Rowan). Lower left: Cameraman Ericson Core (right) confers with Steadicam operator Kirk Gardner. Mark O'Kane did the primary Steadicam work on the film.





Above: A faculty conference held in the high school auditorium, one of many shots in 187 captured with a remote camera on a crane. Lower right: Garfield pleads with the mother (Ester Mercado) of his most troubling student, Cesar. in her cramped, cluttered home.

While working through the script to generate ideas, the duo's first task was to find a way to create cinematic images for a story set primarily in a classroom. The pair also had to discover a new approach to the city of Los Angeles, which has had movie cameras trained on it countless times. 187 strives to be different from any of the L.A. films which have exploited the city's image as a sun-kissed Shangri-la. "We first tried to set up the dichotomy between New York and Los Angeles," Core details. "We gave New York a cooler flavor by using tungsten-balanced film outside with no 85 correction; that lent the film a very blue cast. It also gave the footage a melancholy feel, which served as a prelude to what was going to happen in that section of the film.

"I've always had a lovehate relationship with L.A," the cinematographer adds. "When I think of L.A., I don't really see it as being a beautiful place, like San Francisco or Manhattan. I've always thought of it as a smog-filled, trapped environment, but those qualities reflect Trevor's character: he's been dragged down by the grind. We wanted to give the city that look. I emphasized the smog by using a sepia filter and timing the footage a bit warmer to give it that feeling of suffocation and intensity. Hopefully we did things that were beautiful, but we tried to show the ugliness of Los Angeles in a graphically interesting way."

Core also used a variety of other techniques to give 187 a compelling visual style. "We picked particular colors to use in the L.A. sequences," he says. "We limited the colors that the extras wore, and we limited what we saw [in the frame] in order to get a certain look — creating something more emotional and visceral than people might be used to from a movie of this genre.

"In terms of lighting, I decided to play Samuel L. Jackson's character in the shadows somewhat. That choice made me a bit nervous, because people want to see certain actors, especially big stars. But it seemed to be the right decision in a dramatic sense. Although he is an educated man, his light and inspiration have been taken away from him. I tried to use shadows to keep him a little more hidden away, which hopefully helped exemplify what he was about and what was going on.

"We also made choices with lenses to show the world in a different way, using extremely long lenses to isolate the point of view," Core notes. "Kevin used the term 'forcing the eye' over and over again, and that became our mantra for the film. We did everything we could to force the eye into the narrowest perspective. We tried to present a slice of what you normally would see, and force the audience to look at things in a new way. By combining that approach with our color strategy, we tried to get people to see just one element of the frame."

Reynolds' "mantra" became a central concept to the visual language of 187. "I knew that I really wanted to force the [viewer's] eye in a particular way, more than with any other film I've done," says the director. "I already had in mind some unusual shots that I wanted to do. For example, if you're over the shoulder of a particular subject, normally your focus



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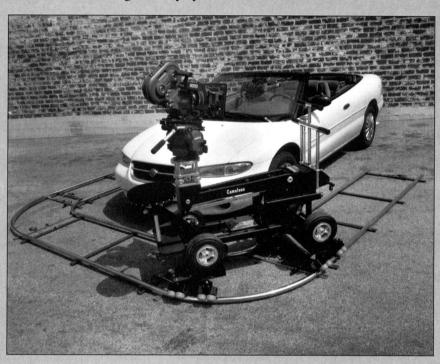
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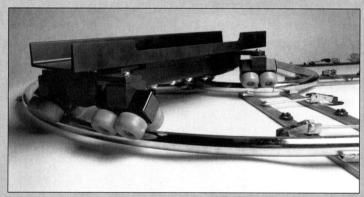
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would be thrown back on the person they're talking to. But we did one particular shot like this where I wanted to keep the focus on the guy whose shoulder you're looking over. It's an odd way to shoot something, but it makes you stay with the foreground character, even though you're not on his face. A lot of cinematographers are quick to say, 'You can't do that, that's too weird,' but Ericson never responded that way. He always said, 'Yeah, that's great,' or 'Let's try this.' Quite frankly, I just wanted to take a lot of chances."

Toward this end, Core drew upon his mental encyclopedia of visual influences, which extend deep into the traditions of classical Western art. "A lot of my inspiration comes from fine art, because that's my educational background. My mother was a librarian, and as a little kid I often went to the library with her on the weekends. The only way I had to entertain myself was to look at the picture books, and most of those were art books. Later on, I studied the work of artists ranging from Rembrandt to Van Gogh, and I always thought that I wanted to be a painter. But that's a very isolated medium, so I ended up moving towards film.

"It's very hard to make film look like a painting," he notes. "On a canvas, you can make a chair look any way you want — for example, letting it go soft by using lighter brush strokes. Expressionism has always influenced me in my fine art work, and it led me into thinking that I could use film as an Expressionistic medium. I'm always looking for ways to manipulate the image so that things in the frame will look like the marks left by brush strokes; that's one of the reasons why I love to use Clairmont Camera's SwingShift lenses [which are built by Century Precision Optics]."

Core has also been influenced by cinematic masterpieces, particularly the work of Carl Dreyer, whose 1931 classic Vampyr (photographed by Rudolph Maté, ASC) left an indelible imprint. "That film was a major influence on me," he attests. "I remember seeing it in a film studies class

where we watched two or three films a night. Vampyr blew me away, because it felt like a nightmare or a waking dream. I wasn't watching it just with my eyes, I was watching it with my chest and my stomach. It was fascinating to me that film could affect me on that deep a level. Painting, sculpture and other art forms can also affect you that way, but I don't think they can put you in a dream state to the extent that film can. After I saw Vampyr, I knew what films could be, and I wanted to try to capture that feeling in my own work. That picture was probably my biggest single influence."

As Core and Reynolds continued their dialogue about the visuals of 187, the pair began screening a variety of pictures with interesting styles. Reynolds reviewed The Deer Hunter (shot by Vilmos Zsigmond, ASC) for its successful exploration of decidedly downbeat subject matter, and even included clips from that film in 187 to foreshadow the story's climax. Core also examined In Cold Blood (shot by Conrad Hall, ASC), which he cites as a film that managed to reach a wide audience without compromising its darker thematic elements.

Once the two filmmakers had established a visual direction for 187, Core introduced Reynolds to several new tools and techniques. The cameraman says, "One of my primary tests was designed to convince Kevin and the producer, Steve McEveety, that we should use the SwingShift lenses. We did tests with them for a whole day, and once Kevin saw what they could do, he was all over them. "

Reynolds adds, "More often than not, if I know what the tool can do, I know how to arrive at the look I want. As I said earlier, on this film I wanted to play with the focus a bit, but I didn't know exactly how to achieve certain effects. But Ericson knew how to use the SwingShift lenses to get what I wanted."

The SwingShift lens consists of a movable lens board receiver attached to a PL-type lens mount by a rubber bellows. Specially modified lenses are attached to the receiver by two captive

screws. The assembly is able to move the entire lens in a variety of directions: tilt up and down, swing side to side, shift position and focus left to right, or up and down. Tilting and swinging the lens plane alters the focus and shape of an image. By combining the various parameters of movement, increased or decreased depth of field can be achieved without adjusting f-stops or lighting, focus can be held in selective planes, images can be repositioned without changing the placement of the camera, and distortion can be corrected or added.

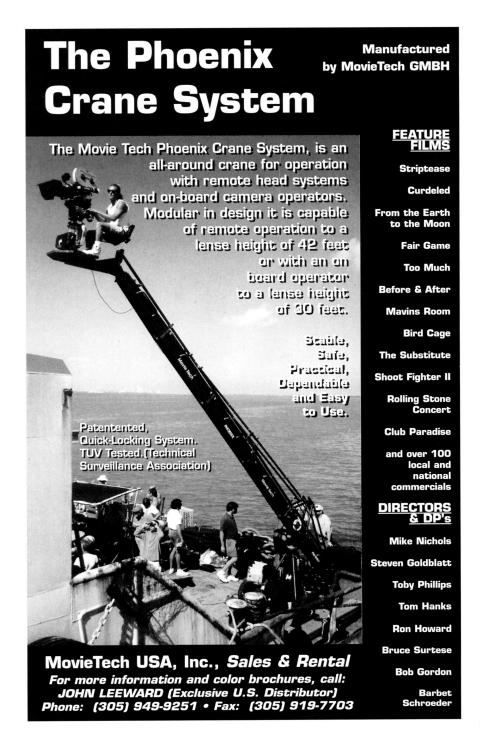
Core offers an example of the device's use in 187: "In one scene, Trevor has just arrived from New York and entered his new classroom. We blocked it out so that the students are out of focus in every shot in the sequence, because to him the students are just a blur at that point. He wasn't at a place vet where he could deal with students on an individual basis. We did a lot of dolly shots in that scene, and we used the SwingShift lens to throw the frame out of focus, so Trevor alone was sharp. We shot the entire scene that way and then moved on. I lost a lot of sleep over it, though, because we didn't have any other coverage. Luckily, it worked."

187 also presented Core with the logistical challenges of his first feature film shoot. The differences between a two-day video shoot and a major motion picture quickly became apparent. "A big change for me was that I was finally doing something for projection," says Core. "Music videos and commercials are shot on film, but you wind up transferring to video. As a result, I really know how to use a telecine to manipulate the image and give it a certain look. I think printer technology for film is very archaic; although it's very basic to photography, there's only so much you can do with it. You can only control the brightness and darkness and a very small color palette; you can't go into secondary colors and things like that. I like extremes, so I really like pushing the negative a lot — blowing it out at the top end and getting very dark at the other end.



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"Prior to principal photography, I did some exposure tests, and we also tested tons of filter combinations to get that 'smoggy L.A.' look. We looked at combinations of tobacco and Sepia filters, and wound up using a Sepia 1 for L.A., including the night scenes, which was pretty intense because you lose a full stop of light for that. We either had to light brighter or have a lower stop. I love low stops because they limit depth of field, although my first AC was about to have a stress attack because there wasn't a lot of depth for

"You can work rapidly on a feature, but at the same time you have to pace yourself to survive the longer schedule."

— Ericson Core

him to work with. I didn't use much in the way of grad filters or polarizers, because I didn't want a blue sky in L.A. For one establishing shot, we went up in a helicopter and filmed the city on a very smoggy day; it looks absolutely disgusting, but it's beautiful in a certain way for the purposes of our story.

"In terms of lens diffusion, I consistently used a quarter white ProMist filter, especially to bring out the really hot highlights in the New York sequence. The filter really blew things out and gave them a nice glow. I remember the wardrobe department asking me how far down I wanted them to bring Sam Jackson's shirts, since they were all white. Typically, you'd bring them down to a beige tone so they wouldn't overexpose. Instead, I asked the wardrobe people to bleach the shirts to be as white as possible so they would blow out and have a more interesting look. In L.A., we often used a black ProMist filter, which controlled the glow and highlights a little bit and provided a nice softness which I like."

Realizing that Core would be facing new demands on his talents, Reynolds — no stranger to

long and demanding shoots — offered the cinematographer some advice. "The first thing Kevin said to me is 'It's like a marathon, pace yourself.' At the very beginning of the shoot I was running around like a maniac. By the end of our first week, we were two days ahead of schedule; we were really cranking through it during the first two weeks, and we managed to stay ahead of schedule for the whole show, but we leveled off a bit and never made up more days than that. For me, that was a major change from always working at a real 'run, run, run' pace. You can work rapidly on a feature, but at the same time you have to pace yourself to survive the longer schedule.

"On a feature, you also have to deal with the rigidity of picking a certain style and sticking with it. With a music video, you might shoot three different band performances and some conceptual elements; over the course of a two-day shoot, you sometimes will use 10 different techniques over a couple of hours of shooting at a time. On a feature you want to create a sense of consistency. We used many techniques on 187, but they had to have specific purposes throughout the film."

Ultimately, Reynolds chose to instill the production with a working policy that combined simplicity and fluidity. "We tried not to have any hard-and-fast rules," the director says. "We tried to remain as free-form as we possibly could, and that philosophy extended to the editing as well."

This flexible strategy still allowed the director to employ the kinetic camerawork that is characteristic of his past work. "I do like to move the camera, because it gives the scene a certain kind of energy," says the director. "Sometimes I'll know what the shot is months before we actually shoot the scene, sometimes it comes to me the night before, and sometimes I think it up that day. On this film, though, I'd usually walk on the set with a shot list and go over it with Ericson, explaining what we'd be attempting to do with each setup. Invariably you make adjustments, so I would try to handle the choreography between camera and actors, leaving the lighting to Ericson. But I always try to have a serious hand in blocking and choreographing the shots."

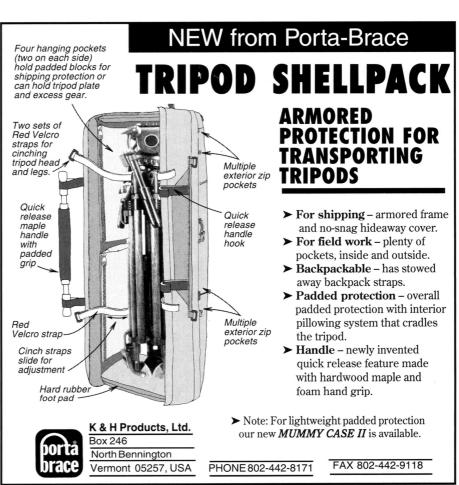
Reynolds' penchant for a roving camera meant that Core had to prepare himself to work in that mode more often than he ever had before. "I like moving cameras on cranes, especially on exteriors, but in tight interior situations, I don't want anything to get in the way of my lighting," the cinematographer says. "I'll sometimes find one angle that looks absolutely right in compositional terms, and I have a tendency to go back to my still photography roots in those situations to hold that frame and just let it be. That's not necessarily the best way to tell a story for a narrative film, however, and Kevin knows that. He wants to move the camera in order to take you from point A to point B in the story.

"We carried two dollies on the show: the Fisher 10 and Fisher 11 for A and B camera, or just to get into tighter spaces. We used dolly track wheels for smoothness because we had such long lenses, and that was another challenge. We did dolly shots with 300mm lenses! People don't usually recommend that, of course, but we did quite a few dolly shots with those long lenses to keep things alive and interesting, and it worked great. We also used several different cranes, particularly a Pegasus crane outfitted with a remote head. We actually built a couple of other rigs as well."

Core shot the film on Eastman Kodak stocks. "I've always trusted them," he attests. "I can blow them out on the high end or go really dark on the bottom end and know that I'm protected within the stock. We shot on 5245 for day exteriors, Vision 5279 for exterior nights, and 5293 for most of our interiors, such as the classroom and within Trevor's house. In New York, I used 5248 for exterior day work, without any 85 filter or correction. Because I wanted that blue cast I've discussed for the New York interior sequences, I used the 93 stock with HMIs.

"I don't like HMIs as much because it's harder to see the





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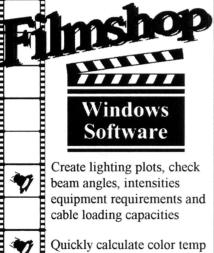
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179 King St. Blyth, Ont., Canada NOM 1HO Tel:519-523-9224 Fax:519-523-9518 E-mail: info@crescit.on.ca Web site: www.crescit.com quality of light coming out of them, and I don't think it's as nice as what you get from tungstens," he says. "But HMIs have higher output per amp, and they worked very well for our specific purpose.

"We mainly used tungstens for the L.A. interiors," he details. "Our lamps were large because we had to fight the sepia filters, and also because I like a very high contrast range. I sometimes want the highlights to be five stops above [the selected stop for a scene]. In order to do that on this picture, we needed very big lights. We were carrying five 20Ks and ten 10Ks. In addition, the gaffer, Bruce McCleary, makes his own 12-light fixtures, which have three rows of four banks that can take up to a 1,200-watt bulb in each socket. It's a very powerful unit with a tremendous amount of punch. We used those quite a bit just to get the stop we needed for our classroom scenes, but we also used arcs. There was one scene, for example, in which Ellen comes into the classroom to tell Trevor that she has been threatened by some student. I used arcs for that scene to intensify the shadows in the room and make it feel a bit more claustrophobic and closed."

Core says that his lens package on the show was quite varied. "At the wide end we had a 14mm lens, and our longest was a 600mm, but we also used just about everything in between. I own my own package, and the two lenses I love to use are the Nikkor 200mm T2 and the Nikkor 300mm T2. They're considered to be 'commercial lenses,' but they provide beautiful quality when things are out of focus. When shooting a close-up with them, the background will be beautifully soft and the separation is very good. It's very hard to pull focus on them, but they create a really incredible look. We also used a full range of Zeiss primes, which are very contrasty and very sharp. I generally tend to favor a bit more contrast than normal, and the Zeiss lenses gave us the look we were going for. We tended to stay toward the long end of the range, from 65mm up; the 85mm was our workhorse. We didn't use anything too wide except when we were doing exteriors or crane shots."

The multitude of effects and angles meant that the camera crew needed hardware that was compact and versatile in order to keep on schedule. "We used Arriflex 535 cameras, and they worked brilliantly for us," Core attests. "Because we were using long lenses a lot, we were dealing with a very narrow field of view, and we compressed space quite a bit. For that reason, we often stacked cameras up, and the nice thing about the 535 is that the viewfinder swings over to either side. We could literally put two cameras right next to each other, shooting on a long lens with one and getting almost exactly the same angle from a tighter lens on the other. The Arris also worked well because of their [flatter] profile; we could shove them right up against the ceiling. The exposure control on the Arri 535A came in handy as well. The aperture shutter varies at the same time that the speed ramps, and we were able to use that to add impact to the shot in which the student stabs Sam Jackson. We began the shot in slow motion, then sped up to 12 frames per second to get more power out of it."

Reynolds recalls, "We went off-speed quite a bit in a lot of scenes, either overcranking or undercranking. I also wanted to use flash frames. I'd seen the technique used in music videos, and I really wanted that effect. Normally when you just turn the camera on and off, you don't get the really bright flash I was looking for, so Ericson used a device called a Microforce Switch, which creates a longer on-off delay and a better flash effect on the film."

Once production was completed, Core began another close collaboration, this time with his laboratory. "I worked with Deluxe, whom I've been with on the past three projects I've done. It's an excellent lab, and I'm pretty committed to them. They knew that 187 was my first feature film, so we talked as much about how to survive the shoot as we did about lab issues. I told them what sort of look I was after, and we talked a bit

about doing a silver retention process like the one they used on *Seven.* But that kind of thing is very expensive and not too consistent, and you can't always get all of your release prints done that way. In the end, Deluxe just developed the film normally, but they were very consistent in terms of their dailies timing. It looked fantastic. It took a week or two to get the look we wanted, mainly because Kodak stocks read even the most subtle colors. That's beautiful for some photography, but it didn't work with our limited color palette."

One specific post challenge arose from a segment of the film in which Garfield covertly videotapes a confrontation with his foil, Cesar (Clifton Gonzalez), over a suspected theft. Reynolds and Core opted to shoot this tense scene on video, but the duo took a new approach to the film/video mix. The cinematographer recalls, "I thought that if we just shot the scene on Betacam and blew it up, it would just look like a normal video transfer. So we started testing with the cheapest, worst video cameras

we could find. We tried about 20 different cameras, two of which we ended up using. One was a security camera from a bank in Indiana; it was an old tube camera, so if someone walked across the frame there would be a 'ghost trail' behind them. We thought that was great, so we used it for our wide-shot master. We also used a Pixelvision camera [a discontinued Fisher-Price toy video camera which records on a standard audio cassette] for our closeup work and coverage. We blew it up to 35mm, and it looked pretty interesting. But I thought we could push it even more, so we wound up doing a telecine transfer of our 35mm blow-up at Pacific Ocean Post. We enhanced the grain and tried to make the pixels stand out more, and then blew back up to film again. It worked out very well."

Amid all of the adjustments Core made as a feature film director of photography, the most important was his first collaboration with a camera operator. "My operator was Jeff Laszlo, and he did a fantastic job," Core reports. "He helped me run the camera department and was very excited about trying new things. It was a new experience for me, since I operate my own camera on music videos and commercials. It can be difficult to show someone how you want something done, especially if you're using a music video technique and the other person hasn't come from that background.

Since finishing his assignment on 187, Core has shot two episodes of the ABC series Gun, and a project for Oprah Winfrey's Harpo Productions entitled Before Women Had Wings, which stars Winfrey and Ellen Barkin. The cinematographer is also on the lookout for his next theatrical project, seeking character-based scripts that will tie into his love for philosophy and mythology. He says, "I love Joseph Campbell and Hero of A Thousand Faces, so if I can find a story with mythic images and basic themes that I can grab hold of, I'm there. If someone wanted to remake The Bicycle Thief, I'd do it in a second." ◆

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# Life and Death on the *Berlin Express*

An intrepid band of Hollywood filmmakers travels to a ravaged Berlin in the wake of World War II, intent on creating a seamless blend of documentary realism and drama.

by George Turner

Black-and-white cinematography achieved its high est standards during the 1940s. Audiences and exhibitors were clamoring for more color films than the industry could deliver, yet some pictures demanded a monochrome treatment. Mystery and suspense dramas in particular were often so satisfying in black-and-white that color would have been a distraction.

Berlin Express (1948) was just such a film. It is an unusually rich visual experience, partly because much of it was filmed under difficult circumstances with a skill that transcends documentary realism. This material was blended seamlessly with superior studio photography and intelligent special effects.

RKO Radio producer Bert Granet conceived the idea for the picture in 1946 after reading a *Life* magazine photo essay about a train making its Paristo-Frankfurt-to-Berlin run. He convinced production executive Dore Shary that RKO should be the first American company to make a feature on location in postwar Germany, a country devastated by World

War II. Granet's ideas were developed into a story by Curt Siodmak, a refugee from Hitler's Germany who had achieved fame as a science-fiction novelist (*Donovan's Brain*) and scenarist of horror films for Universal (*The Wolf Man, Frankenstein Meets the Wolf Man*). As anticipated, Siodmak included some chilling moments while telling a yarn about the fate of his homeland.

In October of 1946, Granet — with the approval of RKO and the U.S. Army — rode the Berlin Express armed with a 16mm cine camera. He found the German cities to be surreal ruins where survivors of the war were struggling under desperate circumstances. Intending to film a visual information guide, Granet photographed people on the trains and in the streets, the unbelievable devastation of the cities, and even the bulletin boards with their hundreds of messages addressed to missing persons. He filmed the area around the great I.G. Farben munitions building in Salzburg as it stood, unscathed, in the midst of utter destruction. (Precision bombing had spared it for future use as the U.S. occupation headquarters.) The



film also details a barter system in which an American cigarette had an exchange value of one dollar. Granet planned to film interiors for the feature in French studios, but the franc had gone wild and costs were prohibitive.

After two months, Granet returned with his footage, a collection of postcard photos and a lot of ideas. He quickly assigned Harold Medford, radio writer and author of the famed U.S. Army training film *Resisting Enemy Interrogation*, to write the screenplay. The underlying theme would be "Why does it take a crisis to bring the people of the world together?" Instead of an obvious "message" film, it would be an action melodrama reminiscent of Alfred Hitchcock's *The Lady Vanishes*, addressing the larger thesis in intimate terms.

Granet intended to return to Europe in June of 1948 with a cast and crew, provided he could get

permission from the U.S. Army. Otherwise, he would go with a camera crew to shoot background sequences and process plates and make the picture entirely at the studio. In early April, Granet submitted the script to the Army and received permission to take a production team to Germany.

Jacques Tourneur, son of the great French director Maurice Tourneur, was assigned to direct. It was a wise decision: multi-lingual and multi-talented, Tourneur had a gift for putting unusual stories on film. He had directed four pictures in France in the early Thirties; upon arriving in America, he had joined forces with Val Lewton to stage the Bastille-storming sequence for MGM's A Tale of Two Cities (1935). After directing short subjects for MGM for five years, he graduated to features. When Lewton became a producer at RKO, he hired Tourneur to direct his first three features (Cat People, I Walked With a Zombie and The Leopard Man) in 1942-43. Lurid titles and moderate budgets notwithstanding, these were quality productions reflecting skill and artistry.

So impressed were studio executives that Tourneur was snatched from the Lewton unit and "kicked upstairs" to make big-budget pictures. By the time of *Berlin Express*, his credits included *Experiment Perilous*, *Canyon Passage* and *Out of the Past*. A large, burly man, he was gentler with actors and technical people than most of his contemporaries. His attention to detail was enormous, even extending to things he felt would be noticed only subliminally. When filming dialogue using intercut close-ups, for example, he insisted upon changing camera position slightly with each cut.

Berlin Express begins with a narrated montage of Parisian scenes. In one of the first, a pigeon is shot down by street urchins who discover a coded message tied to its leg. Police aboard the Main Seiner train to Frankfurt are alerted that underground Nazis are planning to assassinate Dr. Bernhardt, a German statesman working with the Allies, en route to Berlin. Other passengers include Lucienne, Bernhardt's French secretary; Lindley, an American agricultural expert; Franzen, a German businessman; Perrot, a French importer; Sterling, an English educator; and Lt. Maxim, a Russian guard. Near Sulzbach, Bernhardt is killed by a bomb in his compartment. At American headquarters in Frankfurt, we learn that Franzen is really Bernhardt and that the victim was a secret service man.

In Frankfurt, however, the real Bernhardt is kidnapped. Lucienne enlists the aid of her fellow passengers to search for him, and another allied agent, disguised as a clown, is murdered. Lucienne and Lindley are decoyed to the Nazi hideout in an abandoned brewery, where Lindley fights a burly "American" soldier in a huge beer vat. Americans rescue Bernhardt, Lucienne and Lindley, while Perrot kills the Nazi leader. As it turns out, Perrot is actually a high-ranking Nazi official who planted the bomb on the train. En route to Berlin, the friends take turns guarding Bernhardt. Perrot, taking the first watch, tries to strangle Bernhardt, but Lindley intervenes. Perrot is killed when he tries to escape.

Late in July of 1947, a total of 27 cast and crew members were dispatched to Paris, Frankfurt and Berlin for seven weeks of mostly exterior photography. Among the group were actors Merle Oberon (Lucienne), Robert Ryan (Lindley), Paul Lukas (Bernhardt), Charles Korvin (Perrot), Robert Coote (Sterling) and Roman Toperow (Lt. Maxim). Key technical personnel included Granet, Tourneur, cinematographer Lucien Ballard, ASC, special cinematographer Harry Perry, ASC, and assistant director Nate Levinson. The filmmakers brought along Mitchell cameras, 100,000 feet of negative stock and some grip and lighting equipment; extra production manpower was plentiful in France and Germany, but equipment was not.

Ballard (1904-1988) was a veteran of such pictures as *Blind Alley, The Final Hour* and *Tonight We Raid Calais*, and would earn an Academy Award nomination for his black-and-white cinematography in *The Caretakers* in 1963. His other credits include *The Killing, Fixed Bayonets, The Wild Bunch* and *The Getaway*.

Knowing that there would be an unusual number of process backgrounds in the finished production, Ballard insisted on bringing Perry along. The background projections in the finished film were superior because Perry was able to match lenses, camera positions, lighting and exposures precisely. He was an expert at filming anything that lay outside the usual paths of cinematography, such as miniatures and, especially, aerial action. Earlier in his career, he had supervised the filming of the most spectacular aerial footage in history for *Hell's Angels* (1930).

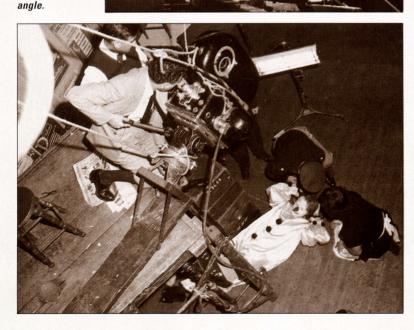
Oberon, an exotic beauty from Tasmania, was the former wife of Sir Alexander Korda, the British



Opposite page, top: Merle Oberon, Robert Coote, Roman Toperow, Charles Korvin and Robert Ryan begin their search for the missing Paul Lukas. Opposite, bottom: Director Jacques Tourneur (right foreground) watches as technicians lay dolly tracks in the heart of Montmartre. This page: Actors and assistant cameramen make their way through the ruins of Frankfurt while heading to a location site.

film mogul. She had become camera-shy after suffering severe facial scars in an auto accident. When she starred in *The Lodger* (1944), Lady Korda fell in love with the cinematographer, Ballard, a tall, good-looking, part-Cherokee gentleman from Oklahoma. Ballard invented a special light for her (dubbed the





"Obie") that effectively erased the actress' scars, even in close-ups. *The Lodger* still ranks among the great examples of black-and-white cinematography, but the romance between Oberon and Ballard proved less durable; the pair married in 1945 and divorced in 1949.

Robert Ryan was Oberon's love interest in *Berlin Express* and, some members of the company claimed, off-camera as well. Rumors of a romantic triangle, as well as reports of a fight between Ryan and Ballard at the Hotel Ritz in Paris, created a nervous tension within the company. In his later years, Ballard emphatically denied that his former wife had engaged in any improprieties.

Ryan — an ex-Marine, Dartmouth boxing champ for four years, stevedore, cowhand and ship's stoker — had become a star following his performance as a murderer in RKO's *Crossfire*. He was a first-rate actor, equally effective in heroic or villainous roles.

Lukas, a veteran Hungarian-American actor who had received an Academy Award in 1944 for Watch On the Rhine, was a natural choice for the Bernhardt role. Robert Coote, a Brit who specialized in humorous roles, was hired to add some light touches to the grim yarn. Three stars of the pre-Hitler German cinema performed their roles in California: Fritz Kortner as the bomb victim, Reinhold Schunzel as an informer, and Otto Waldis as a Nazi leader. The part of a helpful American officer was played by Richard Powers, who had previously been known to the viewing public as longtime Western star Tom Keene. The actor was making his comeback under a new name.

Toperow, a 27-year-old war veteran, had been an actor in Warsaw when the Nazis invaded Poland in 1939. He joined the army, but after the fall of Warsaw he escaped via Romania to Egypt and Italy and then joined the Free Polish Army. When the war ended, he emigrated to the United States. RKO wanted him for *Berlin Express*, but his transient visa was expiring and he was slated for deportation. Congress saved the day by creating a special privilege bill that gave him permanent entry status, and the document was signed and passed by President Truman.

The company was scheduled to be in Paris for two weeks. Granet was appalled by the high costs of living and working in Paris. The cast and crew, living it up at the George V, the Ritz and various nightclubs, were saddened when, after a few days, Granet sent everyone packing to Germany. He decided to make pickup shots in Paris on the return trip.

pickup shots in Paris on the return trip.

In Paris, Ballard used a Debrie Super Parvo sound camera, an exceptional piece of equipment despite its box-like appearance. Although it took 1,000-foot magazines, the camera was surprisingly compact and virtually soundproof. During the project's two stops in Paris, scenes were made at the Eiffel Tower, Notre Dame Cathedral, the Hall of Justice, Sacre Cour Cathedral and in the crooked streets of Montmartre. It was impossible to find enough lights to do night-fornight photography in France or Germany. The only night-for-night exterior filmed on location was executed at the Gare de L'Est railroad station in Paris. Even after borrowing all of the studio lights and gen-

an overhead

Top: Merle

Oberon and

Robert Ryan

follow an

American

erators in Paris, the filmmakers found themselves unable to light the scene adequately.

The sudden change of scene from the opulence of Paris to the desolation of Frankfurt and Berlin was both startling and shattering. Col. George Eyster of the U.S. Army's public relations office served as liaison for the movie troupe, arranging for transportation and billeting.

To appreciate the condition of these devastated German cities at the time, one must realize that they had been strategic targets of the Allied forces in the mightiest conflict in history. It is impossible to measure the costs of World War II. Estimates held that it left at least 22 million civilians and military personnel dead and more than 34 million wounded, but the war's toll in terms of human suffering and destruction of property was incalculable. The victorious Allies divided Germany into four occupation zones controlled by the United States, the Soviet Union, Great Britain and France. The wartime honeymoon between the Soviets and the other Allies eroded quickly, however, and everyone suddenly remembered that Stalin was as monstrous as Hitler.

The ancient city of Frankfurt am Main had been the transportation hub of Western Europe since the time of the Roman Empire. Its numerous highways, railroads, waterways to the North Sea, three inland harbors and numerous factories, as well as the world's largest airport, made it a prime target for Allied bombers and artillery. About half of the city was leveled.

Such was the situation in Frankfurt on August 2, 1947, when the *Berlin Express* cast and crew arrived from Paris aboard the *Main Seiner*, one of the Berliner expresses. A borrowed camera car, said to be the only one in France, also arrived. Storage space was at a premium in bombed-out cities, and it was necessary to find cellars or empty offices in army-occupied buildings for the film stock. Negative processing was another problem, because it would have been impossible to maintain quality control in the labs then available in Europe. All exposed footage had to be flown to the United States for processing, making it impossible to view rushes until the company's return to Hollywood.

Work began immediately on day-for-night effect scenes in an alley that resembled a rock canyon near the spectacular ruins of a cathedral and a battered statue of Justice. Considerable work was done inside and outside the I.G. Farben Building, where American soldiers worked without pay as themselves. In appreciation, RKO made a large donation to the Army's welfare fund. German extras asked for a standard fee of two American cigarettes per day. A professional actor who took time off from his stage duties in *Mourning Becomes Electra* refused to be paid in money, asking instead for either a carton of cigarettes, a pair of pants or a package of food. When he was given all three, he complained that he was being overpaid.

Ballard quickly found that ruins which have been exposed to the elements for several years were difficult to photograph as anything more than shapeless grey masses. He also discovered that ruins caused



Tourneur (left) and Ballard on location in Berlin.

by artillery bombardment were more photogenic than those blown apart by aerial bombing. Even these posed a problem, because under most lighting conditions, the black holes often resembled dark windows. Careful crosslighting was necessary to show the magnitude of the destruction and the desolation of the buildings. Ballard requested, and got, a revised shooting schedule to fully utilize the crosslighting of the sun. Fill light was mostly obtained with reflectors, with occasional use of one or two flood lights.

Much of the story occurs at night, but nightfor-night technique was impractical because of the shortage of lighting equipment. *All* of the exterior night effects shot in Germany were day-for-night. Ballard made these the way he had shot night effects in Charles Starrett Westerns years before, by using combined red and green filters under the light of the sun, with reflectors for fill.

The movie company had the cooperation and protection of the U.S. Army during its stay in Frankfurt. Berlin, Germany's largest city and capital, was a different story. Isolated deep within Soviet jurisdiction, the city was divided into four sectors of occupation. The sectors occupied by U.S., British and French troops became known as West Berlin, the Soviet sector as East Berlin. When Granet first visited Berlin, he had noticed there were two rail tracks leading into, and out of, the Soviet zone. Now one set of rails had vanished, ties and all.

"We expected no difficulties so long as we photographed non-military objectives," Granet told interviewer Philip K. Scheuer of the Los Angeles Times (April 18, 1948). "The four powers had agreed to that. The British and Americans cooperated, and so did the French — except that there was nothing to shoot in the French sector. The Russian zone had nearly everything we wanted — the Reichchancellerie, Reichstag, Brandenburg Gate, Adlon Hotel and so on. In short, the heart of Hitler's Germany. But the Russians said no. The minute they billet a soldier to live anywhere, it seems, that place becomes a 'military objective' — and last August there were 160,000 Russian soldiers in Berlin!

"General Lucius Clay and the head of the motion-picture division, Erich Pommer, couldn't help us, and the Soviets wouldn't. They promised to give it consideration — which meant it would be relegated

to a file for 15 years or thereabouts... It was our friends in the Berlin Press Club who finally saved the day — and the film — by making a plea to the quadripartite (coordinating) board. We got into the Russian sector and we got our shots of [the players] 'on the spot.' We were the only Hollywood troupe that did."

The camera truck was fired upon when it entered the zone. The driver had mistakenly taken a street other than the one specifically designated in the permit. Later, the camera crew fought with a band of

Russians who tried to steal their tires.

Ballard and Perry used Mitchell cameras for all of the German work, with one exception. To film an actual raid on a black market gang, the cameramen wore Military Police uniforms and accompanied the real MPs, photographing the action with handheld Bell & Howell Eyemos. Wide-angle lenses were utilized much of the time for photographing in crowded locations, for imparting a greater sense of depth, and to emphasize the angularity of the ruins.

The company returned to the United States in mid-September. Oberon told reporters, "H.G. Wells in his wildest flights of fancy never imagined anything so weird as Berlin today." Coote told them, "Blackmarketing has become the art of surviving. I'm confident we've captured it for the screen. I'm still blinking as if I have waked from a nightmare."

Production continued at RKO Radio in Hollywood and RKO Pathé in Culver City. The cost of the location trip, not including the salaries of American personnel, totaled \$130,000. Transportation of personnel and equipment cost \$26,000. Five weeks of working in Germany, where life was cheap and the U.S. Army helped with food and shelter, cost \$14,000, while two weeks in high-living Paris cost \$90,000. Granet noted, "A dinner for two cost \$40 in Paris and \$1.20 in Berlin." European location footage accounts for about 30% of the principal photography in the finished movie, and a large percentage of the studio work utilized Harry Perry's background scenes on the projection process stage. Matte paintings were composited to enhance some location scenes.

The exterior sets and most of the interiors were built at Pathé, including a car-by-car reproduction of the *Main Seiner*. The matching of studio sets and lighting with the predominantly sunlit location scenes and process backgrounds defies detection. Fortunately, the crosslighting used in the German ruins is ideal for lighting foreground elements on the process stage. Dialogue looping was necessary for most of the location sequences. This too was expertly done in Hollywood.

A fine musical score utilizing national themes adds to the effectiveness of the visuals. Appropriately, the composer was another refugee from Hitler's Reich, Frederick Hollander, who in 1930 scored the first German all-talking feature, *The Blue Angel*.

A typical Tourneur/Ballard sequence depicts the death of an Allied agent disguised as a clown. Pursued by assassins, he staggers toward the camera and falls forward, covering the lens. After a moment of darkness, the clown is lifted up and the scene continues. There's something terribly disquieting about a

clown dying in the street from a bullet wound! The action highlight is a fight between Ryan and Michael Harvey in a brewery. After crashing through the top of a huge vat, they duke it out waist-deep in beer. The camera then points upwards as another man appears above the hole, appearing abnormally tall in a striking wide-angle shot.

The identity of the secret assassin is revealed in an unusual sequence devised at RKO's Hollywood studio by the company's Camera Effects Department, headed by Russell A. Cully, ASC. Oberon and Ryan are standing in their compartment while the train is preparing to pull out. Korvin chats with Lukas in an adjoining compartment. Outside the window, another train noisily hurtles past on an adjacent track, and Korvin whips a scarf around Lukas' throat from behind. Intermittent reflections from the adjoining compartment onto the windows of the passing train reveal the attack to the audience, which is kept in suspense for precious seconds until Ryan sees what is happening in time to go to the rescue.

Here's how it was done: Harold Stine, ASC filmed Korvin and Lukas framed in the window of a train mockup. This footage was reflected onto the windows of a moving miniature train, which was photographed in sync with the reflected images. The resulting scene was back-projected in proper scale on a process screen outside the compartment window, with Oberon and Ryan in the foreground.

Scenes such as this accented the drama of a movie in which on-the-spot realism and studio polish were combined to perfection.

#### Credits

An RKO Radio picture; Dore Schary in charge of production; directed by Jacques Tourneur; produced by Bert Granet; screenplay by Harold Medford; original story by Curt Siodmak; director of photography, Lucien Ballard, ASC; art directors, Albert S. D'Agostino, Alfred Herman; special effects by Russell A. Cully, ASC, Harry Perry, ASC, Harold Stine, ASC; set decorations by Darrell Silvera, William Stevens; makeup supervision, Gordon Bau; assistant to producer, William Dorfman; music by Frederick Hollander; musical director, C. [Constantin] Bakaleinikoff; film editor, Sherman Todd; sound by Jack Grubb, Clem Portman; assistant director, Nate Levinson; Miss Oberon's gowns by Orry-Kelly; optical effects, Linwood G. Dunn, ASC; production manager, Sam Ruman; script supervisor, D. Ullman; hair stylist, Ruth Reeves; dance director, Charles O'Curran; head grip, S. H. Browell; still photography, Rod Tolmie (U.S.), Arthur Say (Europe); French language coach, Simone La Brousse; RCA recording. Actual scenes in Frankfurt and Berlin were photographed by authorization of the U.S. Army of Occupation, the British Army of Occupation and the Soviet Army of Occupation. Running time, 86 minutes. Released May 1, 1948.

Lucienne, Merle Oberon; Robert Lindley, Robert Ryan; Perrot, Charles Korvin; Dr. Bernhardt, Paul Lukas; Sterling, Robert Coote; Walther, Reinhold Schunzel; Lt. Maxim, Roman Toperow; Schmidt, Peter Von Zerneck; Kessler, Otto Waldis; Franzen, Fritz Kortner; Sgt. Barnes, Michael Harvey; Major, Richard Powers; Maja, Marle Haydon; Train Captain, Jim Nolan; Dining Car Steward, Arthur Dulac; Huskies, Ray Spiker, Bruce Cameron; MP Sergeant, Buddy Roosevelt; Col. Johns, Charles McGraw; Army Technician, David Clarke; MP, Roger Creed; Train Sergeant, Gene Evans; ROT Sergeant, Robert Shaw; Clown, Eric Wyland; Saxophone Player, Norbert Schiller; Acrobatic Team, Bert Goodrich, George Redpath; Master of Ceremonies, Richard Flato; Cigarette Maker, Jack Serailian; German Waitress, Lisl Valetti; Ticket Taker, Eva Hyde; Corporal, Allan Raye; Fraulein, Taylor Allen; Germans, David Wold, George Holt, Bill Raisch, Carl Ekberg, Hans Hopf; Frederich, Willy Wickerhauser; Richard, Will Allister; German Youths, William Yetter Jr., Ribert Boon; Artist, Ernest Brengk; Frau Borne, Hermine Sterler; MP Guard, Rory Mallinson; German Woman, Fernanda Eliscu; German Bystander, Kurt Furburg; Gls, Larry Nunn, Jim Drum; German Civilian, Fred Spitz; Captain, Jack G. Lee; Clerk, Hans Moebus; German Steward, Frank Alten; Russian Colonel, Leonid Snegoff; British Major, James Craven; American Jeep Driver, Fred Datig Jr.; American Sergeant, William Stelling; German Peasant, Al Winters.

# On the Spot

After perusing some extremely detailed storyboards, director of photography Bill Pope (Bound) knew that that the driving concept behind Kodak's latest installments of their "Tall Tales" commercials had to be offbeat images that would match the quirky tone of prior spots in the series (which include "Pie Plate" and "Gremlin"). "I felt like the proper reaction to the spots would be 'Cool!' rather than 'Beautiful,'" Pope states. "A too-beautiful image tends to be static and contemplative, and can pull the viewer right out of the story. In pell-mell narratives like these, beauty shots would have been deadly."

Directed by David Kellogg, the three new spots — "Tattoo," "Saturday" and "Stacy" — link life's adventures with Kodak's products in compelling oneminute movies.

The narrative of "Tattoo" follows a high school student who desperately desires a tattoo. The girl's mother tells her to take photos of her friends' tattoos first, so they can study the options. The daughter completes the task with a Kodak camera, but ultimately decides that a tattoo isn't for her. "David wanted the imagery to be simple, clean and funny," recalls Pope. "You might describe David's spots as 'droll epics,' but they derive their 'epic' quality less from scale than a relentless accumulation of details and locations. For example, the narration is extensive and the story follows suit, so that it becomes a kind of 'yarn.'"

The normally traditional Kodak allowed Kellogg and Pope free reign in shooting tattoo dream sequences, and the duo opted to illuminate those scenes with Wildfire fluorescent paints and UV units. "That was fun," Kellogg says. "Unfortunately, the fixtures need to be quite close to objects, so we were always checking the edge of the frame or looking for a place to hide them in the shot."

"I hadn't worked with fluorescents since my music video days," recalls Pope, who began his cinematographic career shooting MTV eye-grabbers in the mid-1980s. "Ideally, it's best to test before shooting, but if I don't have that luxury, I test by lighting something next to the object with conventional lighting. I then do a density comparison with my eye and make any necessary adjustments "

Pope found that he could use subtler techniques in the 60-second format than he would for a 30-second spot.

# Simulating Some "Kodak Moments"

by Mary Hardesty







A sequence of frames "The extra halffrom "Saturday". minute makes the spots seem more movie-like." he notes. "We wanted the stories to call attention to Kodak, but we wanted the imagery to



When it comes to simulated lightning, there's lots going on at Lightning Strikes!

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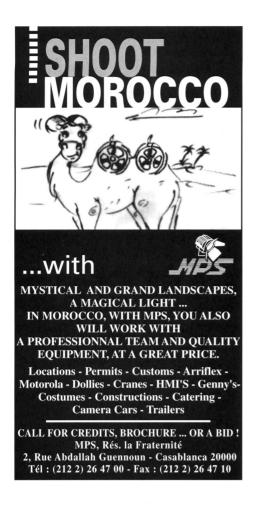
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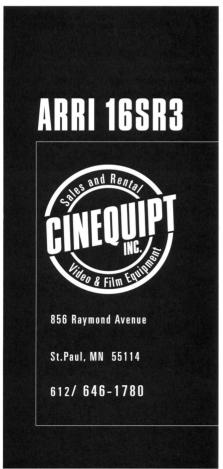
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quietly support the narratives, without overpowering them."

In the duo's second spot. "Stacy," a young man's life flashes before him as he snaps a picture of his girlfriend. Pope worked closely with director Kellogg, gaffer Bob Finley and art director Stacey Litoff-Mann to achieve an interesting result. "We painted all of the walls in the colors that David likes," recalls Pope. "David likes a lot of details and he's very big on preparation, so there's a lot for me to grab onto. He's a hands-on director, and his art school background has given him a very good eve. It's great when something is thought out in so much detail. It means that I don't have to avoid anything or erase anything with light. I know that what's in front of me has been thought through and approved. That really frees me up to look for a good frame."

According to Kellogg, the most challenging spot of the series was "Saturday," which combines matte painting, multiple live-action passes and digital post effects. The narrative focuses on a little girl whose prowess with a Kodak camera prompts her discovery by a museum director, who wants to put her work in his new avant-garde wing. The spot was shot on location at a city hall building doubling for a museum, with 20 extras on hand. In order to make this small group of extras appear to be dozens of pedestrians passing by the museum, the filmmakers employed some clever tactics. Kellogg explains, "We drew chalk lines on the sidewalk and told the extras not to cross them as they walked forward. We kept moving the chalk lines [further across the sidewalk] until the entire front entrance had been crossed. Sometimes, we had the actors switch places; we'd break up the group a bit differently so there wouldn't be a discernible pattern. We also had them drive by in cars numerous times as we kept the camera locked down."

More than 10 passes of the extras were composited together in the finished shot. "All we kept of the city hall building were the steps and pillars," recalls Kellogg. "The avant-garde wing was added digitally; we also had to add searchlights in post, because we couldn't get real ones. Even if you're using real searchlights, you often have to digitally enhance the arc of the light. If you look carefully in the finished spot, you will see

the source of light hidden behind a black box that looks as if it's part of the building's architecture."

The "Saturday" banner hanging in front of the museum was accomplished with a greenscreen on location, and involved some clever manipulation of perspective. "Bill made a 12' banner look like a 60' banner," says Kellogg. "He really knew which frame rate to use to make it appear as if it was actually larger."

For the interior shots of the museum, Kellogg once again relied upon his chalk-line trick. "In this shot, the little girl is surrounded by a bunch of extras," recalls Kellogg. "We had the group run up and stop, and I drew a chalk line behind them. We then had them run up and stop at that line. We did this numerous times, radiating the chalk circles out to create the appearance of a crowd."

A Panavision camera, outfitted with Primo lenses, was utilized throughout the nine days required to shoot the three spots. Steadicam operator Rusty Geller was brought in for one day, and a still photographer was on set for the "Saturday" spot to simulate the look of snapshots taken by an 11-year-old shutterbug. "We used a lot of wide-angle lenses for these shoots, and I love the Frazier lens," states Kellogg. "We're so excited that Panavision hooked up with it, because it lets you get ridiculously close to things without casting a shadow. Fortunately, Bill is not afraid to come up and put his nose in the product and hold it there "

Pope reports that Kodak was a hassle-free client. Of course, it probably helped that the cinematographer utilized Kodak's 5248, 5293 and 5298 film stocks to shoot the ad. "The company's major stipulation was that the spots should show how Kodak products can affect people's real lives," says Pope about the series. "We also were asked not to use a green background behind the Kodak label — they didn't want anyone to think that these beautiful spots were for Fuji!"

#### 60-second Spots:

"Tattoo," "Stacy," "Saturday"
Client: Kodak
Director of photography: Bill Pope
Director: David Kellogg
Production Company: Propaganda Films
Agency: Ogilvy & Mather, New York

# New Products

# 1997 ShowBiz Expo West Highlights

# compiled by Christopher Probst

The annual ShowBiz Expo West marks a key opportunity for motion-picture equipment manufacturers to unveil the fruits of their respective labors to filmmakers. At this year's Expo, held at the Los Angeles Convention Center from June 13-15, AC canvassed the exhibition floor and discovered many innovative tools created specifically to aid cinematographers.

One of the biggest attractions at the event was the unveiling of Panavision's completely new 35mm studio production camera, the Millennium, which will be the focus of an upcoming AC article detailing its capabilities. This month, however, we reserve this space for some of the other ingenious new devices offered at ShowBiz.



**Arriflex Support Systems**.

The Arriflex Corporation introduced the new Arrimag 300E, a 1,000' displacement magazine for the Arriflex 435 camera.

The new magazine is motor-driven and designed for high-speed operation and time code recording. Its two high-powered torque motors provide proper film tension throughout the full-speed range — from 1 to 150fps, in forward or reverse. Both film shafts are additionally equipped with friction pads to secure the film when the camera is disconnected from power.

The magazine body is made of a special carbon-fiber material for

minimal weight (10 lbs. without film). An indented handgrip and a swing-out handle provide easy handling and transportation.

The new Integrated Video Assist for the Arriflex 435 is fully integrated into the camera body. Its extremely fast optics (aperture 1:1.4) and highly sensitive color CCD chip ensure superb image quality even in poor lighting situations. The image is flicker-free from 5 to 150fps.

The slim, compact unit houses the control panel and all electronic components. A small module consisting of highly efficient optical elements and a CCD sensor have replaced the traditional video elbow. The complete Integrated Video Assist system adds a mere .9 inches (22mm) to the width of the camera while increasing its weight by only 1.5 lbs. The module fits between the basic camera electronics and the expanded electronic function module.

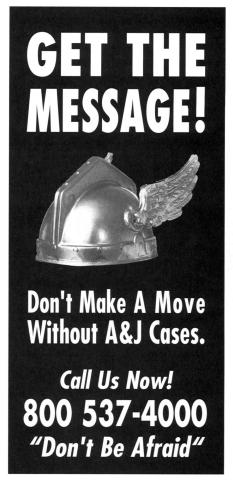
Additionally, it is possible with this system to insert different image format frames, camera status display,

and time code information.

Arri has also unveiled its new T12 10/12K tungsten Fresnel lamp. Using a standard DTY 10,000W lamp, the Arri T12 produces almost one full stop more light than any

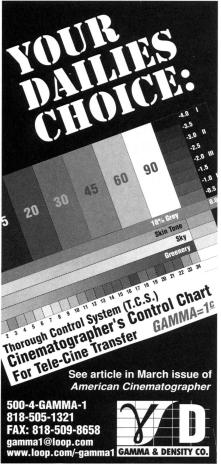
other "Baby" 10K available, thanks to improvements in their low-expansion borosilicate Fresnel lens and spherical specular high-purity aluminum reflectors. Additionally, the new 12,000W lamp can be ordered for more added punch.

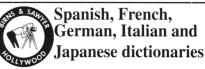
The T12's 16  $^3\!\!/^{\!\!\!4''}$  Fresnel lens offers more light output than fixtures











Compiled by Verne Carlson, these 5 dictionaries (170 pages each) will help you find the exact translation of an English Film & Video term into Spanish, French, German, Italian or Japanese.



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1026 N. Highland Ave. , Hollywood, CA 90038 (213) 466-8211 · Fax: (213) 466-7049 e-mail: inf o@birnsandsawyer.com website: www.birnsandsawyer.com with 14" lenses without significantly increasing size or weight (64 lbs. with cable). Arri's rugged aluminum extrusion construction makes the new T12 suitable for either studio or location applications.

When set to spot focus at 20' and a 13-degree angle, the T12 creates 3933 footcandles in a 4.6' diameter. Adjusted for full-flood at 20' and a 54-degree angle, the lamp creates 825 footcandles in a 19.1' diameter.

The new Arri T24 24K Tungsten Fresnel utilizes the same improved Fresnel lens and aluminum reflector technology of the T12, and utilizes a new 24K/220V lamp. The T24's new Fresnel lens measures  $24\,\%$ " and the unit weighs 128 lbs. with cable.

When set to spot focus at 25' and a 14-degree angle, the T24 creates 4467 footcandles in a 6.1' diameter. Adjusted for full-flood at 25' and a 60-degree angle, the lamp creates 685 footcandles in a 26.8' diameter.

Arriflex Corporation, 617 Route 303, Blauvelt, NY 10913, (914) 353-1400, Fax (914) 425-1250; 600 N. Victory Blvd., Burbank, CA 91502, (818) 841-7070, Fax (818) 848-4028.

## Abel Cine Tech/Aaton Join Forces

Aaton Cameras (based in Grenoble, France) and Abel Cine Tech (New York) announced the formation of a new corporate entity serving the Hollywood and West Coast regions. Abel Cine Tech will open its doors at 4110 W. Magnolia Blvd., Burbank, CA 91505, on August 1, 1997.

The company will provide sales and support of Aaton 16 and 35mm motion-picture camera systems and related accessory equipment. The main objective of the new company will be to provide the West Coast Aaton client with a unified and seamless sales and support network under the Abel Cine Tech umbrella. This will be achieved by utilizing a combination of established Abel service plans, training, and educational programs, and an organized exchange of ideas with manufacturers.

Current orders, quotations and accounts established through Aaton des Auters will be honored by Abel Cine Tech without interruption.

As part of Aaton's continued support of the Super 16 television and documentary markets, the company is

# For his Arizona-based commercials, Director Bill Linsman rented Clairmont Camera equipment over 200 times without his crew ever prepping it in L.A.

We routinely prepped it for him and shipped it by air from our place in California to his in Arizona. His crew prepped it again there; and shot with it in Kansas, New Mexico, Michigan, Texas and New York.

ased in Phoenix, I have been able to make L.A. quality commercials at less than L.A. cost," says Bill Linsman.
"Crew rates are about 25% lower; and I know \$500/day locations in Phoenix that would cost \$2000 in Los Angeles."

# Quality

"However, getting L.A. quality has always meant hiring Hollywood actors and Hollywood DPs—the best. No problem there; Phoenix is a 55 minute flight from Burbank. It has also meant always renting camera equipment from Hollywood."

## **Trust**

"In the early days, I would ask each DP where he preferred to rent. His preference was something I relied on heavily at first. Air freight costs money. To offset that, it would help if we didn't have to fly to L.A. and back to prep equipment. I needed a rental house I could trust to prep it for us and to ship everything to Phoenix on time and with no pieces missing."



## Routine

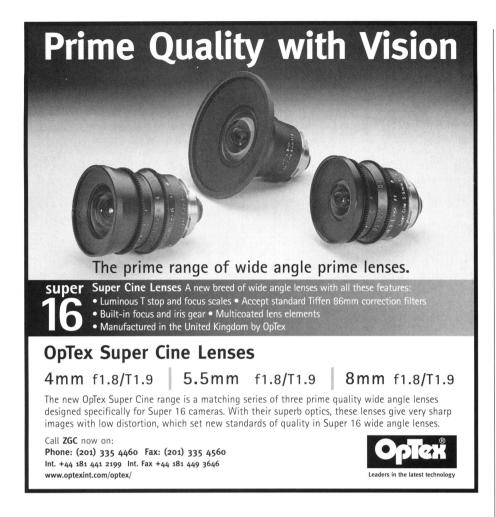
"And I needed that done routinely at least once and usually twice a month. Most of those early DPs told me their first choice was Clairmont. They were Clairmont regulars; fairly soon, we became regulars, too. Now I tell a new DP I'm comfortable with Clairmont and he generally nods his head."

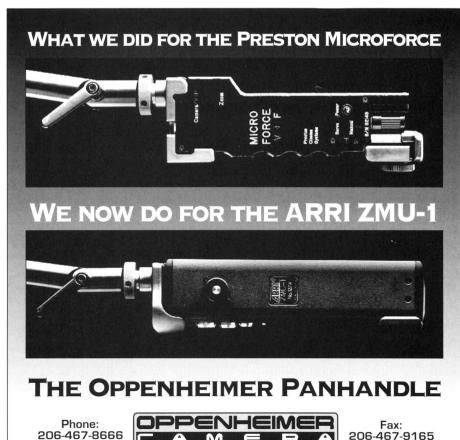
"Here's how comfortable: the Clairmonts have sent us prepped In the U.S.A., Bill Linsman has directed (and in many cases produced) TV commercials for McDonalds, Chevron, General Mills, Oldsmobile, Pepsi, Porsche, Coors, Coca Cola, Honda and American Express, among others. In London: spots for Crest, Pampers, Clearasil, Head & Shoulders and Vicks, among others.

cameras for over 200 jobs and we've shot with them both in Phoenix and at locations in six States," says Mr. Linsman. "One day in Phoenix, I remember, somebody powered up the camera wrongly and shorted it out. This was at the start of the day—about 8AM. A phone call to Clairmont and we had a prepped replacement camera body on our set before 10.30."

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now offering 800' magazines for their XTR Prod cameras. With 22 minutes of filming per roll of film, the new magazine will enable less roll-out interruption on the set, fewer film reports and less labeling, fewer short ends and mag changes in difficult locations, less equipment to carry and a better chance to catch those moments that might normally have been missed during a mag change.

The 800' magazine weighs 3.5 kg, and retains the ergonomic design and comfort of the 400' mag (2.2 kg.). Overall, balance is even better with frontheavy lenses such as the new longer zooms and accessories.

Eastman Kodak has announced that they will start supplying 800' loads of 16mm film this September.

Abel Cine Tech has now added two new Canon lenses to their inventory of zooms designed to cover the Super 16 format. The Canon Super 16 7-63mm T2.6 features a 9X zoom range, is available with either Arriflex PL, Arri bayonet, or Aaton mounts, and weighs a mere 1.9 kg.

The Canon Super 16 11.5-165mm T2.5 boasts a 15:1 zoom capability, is also available in Arri PL, Arri bayonet and Aaton mounts, and weighs only 1.6 kg.

Both lenses feature large engraved numbers for focus (in both meters and feet) and T-stop, and all gear rings are fully compatible with standard zoom motors and studio follow-focus rigs.

When used in conjunction with the Aaton XTR Prod fitted with the new 800' magazines, these lenses balance the camera for handheld cinematography even better than the popular 8-64mm balanced with 400' magazines, making the combo ideal for documentary filmmaking.

Abel Cine Tech, 66 Willow Avenue Suite 201, Staten Island, NY 10305, (718) 273-8108, Fax (718) 273-8137.

#### **Clairmont Offers Vision III** Imaging's MOE Lens

Vision III Imaging is a Virginia corporation founded in 1989 to develop and market autostereoscopic (automatic depth enhancement) technology. The resulting V3 moving optical element (MOE) camera lenses enhance the texture, depth and overall quality of images recorded on either traditional film or videotape. A significant feature of this technology is that V3 images can be displayed by standard motion picture projection or broadcast television with the use of viewing glasses or special equipment.

Vision III has concentrated on the staged development of a series of parallax scanning lenses (MOE II) for 35mm PL-mount motion picture cameras. The production prototypes of the MOE II Lens series were completed in January '97. The production series of 10 sets of five lenses is expected to be complete by the end of this summer, and will be offered by Clairmont Camera.

The Vision III MOE lenses are available in focal lengths of 24mm (T2.5), 35mm (T1.9), 55mm (T1.8), 85mm (T2.2), and 135mm (T3.2).

Vision III Imaging, 1155 Herndon Parkway, Suite 200, Herndon, VA 20170, (703) 478-5270, Fax (703) 478-5274; Clairmont Camera (818) 761-4440; Web: www.V3IMAGING.com.

## **Gunner's Smart Cable** and Illuminated Slate

Gunner Lighting and Camera is the first facility in Southern California to offer the Smart Cable, which gives users control over battery-based systems by gauging their voltage and power consumption. Used in the place of any standard camera or DC light power cable, the Smart Cable provides a fast and reliable gauge of current battery strength, finally ending the mystery of battery supply.

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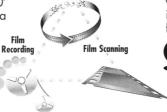


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which provides a continuous LED digital output of the voltage or current being used through the cable, with an accuracy of +/- .3 amps up to 15 amps.

The Smart Cable is ideal for film cameras, ENG video cameras and portable recording equipment. It is available for all 12-volt 4-pin Canon plugs or 24-volt camera systems, such as Aaton, Arri, Moviecam or Panavision. Power consumption for the LED display is just 45 milliamps, so the Smart Cable won't drain your batteries.

Gunner also now offers a new, patented, glow-in-the-dark illuminated slate from Industry Advanced Technologies. Powered by two 9-volt batteries, the internal slate lamp illuminates when the sticks are raised, and continues to glow in the dark when they are clamped together. The slate is available in preengraved format or blank for custom engraving. A custom Cordura Nylon slate bag is also available.

Gunner Lighting & Camera, 5224 Vineland Ave., North Hollywood, CA 91601, (818) 508-2245, Fax (818) 766-3969.

#### K-Tec's "Shock-Block"

K-Tec Corporation introduces the new Shock-Block GFI, an active-ground-fault interrupter designed for the motion picture and television industries. The portable Shock-Block GFI is designed to protect actors, film crew and equipment on sets where water or moisture can create electrical hazards and is being used extensively during the filming of



the upcoming underwater epic Sphere.

The Shock-Block has been designed as a simple in-line plug-in device to provide ground fault protection, and features a 5-element LED chain indicating the condition of the circuit(s) being monitored and protected. As ground leakages develop, the LED chain indicates the amount of circuit leakage present, which is useful when multiple loads are involved.

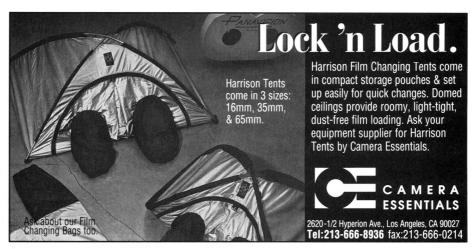
Conventional GFIs nuisance-trip, or fail to operate on circuits that are greater than 20A or that operate from a variable voltage power supply. The Shock-Block provides reliable and nuisance-trip-free 5mA ground-fault protection for AC loads up to 100A throughout its voltage range (up to 130V).

The Shock-Block GFI units are available in three different models: Shock-Block 100 (for AC up to 130V variable), Shock-Block 250 (for AC 208/220/230V) and Shock-Block AC 500 (for AC 480V).

K-Tec Corporation, 7224 Winterwood Lane, Dallas, TX 75248, (972) 458-8931, Fax (972 458-8936; LA Representative (818) 816-7870; Web: www.ktec.com; E-mail: helpline@ ktec.org.

## Preston Cinema Systems' Light Ranger

Designed to enable accurate follow-focusing even in the most difficult conditions — such as when the subject movements are unpredictable or change quickly, or during the use of extremely long focal lengths — Preston Cinema System's Light Ranger automatically focuses the lens through the use of a operator-controlled laser sighting system



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Lynx Robotics, 6827 Valjean Avenue, Van Nuys, CA 91406, 818,989,1622 fax 818,989,1257

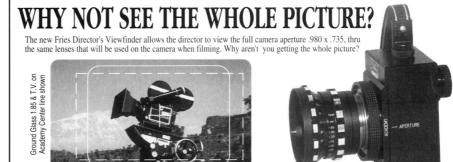
# 35 MM

The Fries model 435 is a new general purpose MOS production 35mm camera. With its optical printer compatible register pins, steadiness and 150 FPS speed. The 435 is ideally suited for special effects, commercials or any photography where a quality steady image is desired.

The 435 is a spinning mirror reflex camera with a 170 degree blanking shutter. The internal 30VDC motor runs the camera from 2 to 150 FPS forward and 2 to 50 FPS reverse, in one frame increments all crystal. The camera is equipped with take-up and supply torque motors.

There are both 1000 ft. and 400 ft. displacement type magazines. A new feature is the light valve which allows the operator to direct all the light to the viewing system, or to the video assist, or combo which splits the light between both viewing and video assist.





Film Clip: The finder has a set of register pins that will hold a film clip the same as the Fries camera. Groundglasses: Interchangeable. The same groundglass as is used in the Fries 35R and 35R3 cameras

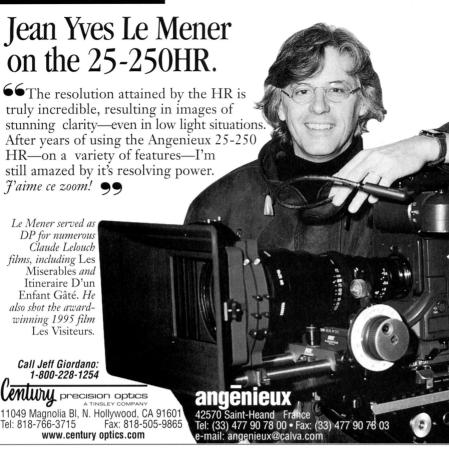
Director's Viewfinder



Fries Engineering designs and manufacturers special effects cameras and conversions in 35mm, 65mm and Vistavision including high speed, time lapse and motion control.

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that drives a focus motor.

The Light Ranger Autofocus System uses a combination of low-power infrared laser and geometric triangulation to determine the exact distance between a subject and the camera focal plane. The unit is normally mounted on a separate tripod head separated from the camera by a convenient distance. An Encoder Head provides pan and tilt angle data so that parallax effects may be canceled out. In cases where parallax effects aren't significant — such as when the pan angle is small — the unit may be mounted on a conventional head.

The system offers four modes of operation: Manual Mode, in which the lens focus is controlled by a manual control knob, and the focus setting is displayed in the readout; Automatic Mode, where the lens is automatically adjusted to the measured subject distance in the



readout; Offset Mode, in which the focus is still automatically adjusted but is offset by a distance manually set by the operator; and Split Mode, which allows focus "pulls" to be manually controlled by the operator. The sequence of focus pulls begins by focusing on a first subject; the unit is then aimed at a second subject, and when the range button is pressed, the display indicates the offset to this subject, allowing the operator to manually control the focus knob to pull to the second subject.

Preston Cinema Systems, 1659 11th St. Suite 100, Santa Monica, CA 90404, (310) 453-1852, Fax (310) 453-5672.

## Mole-Richardson 20K Skypans

The Mole-Richardson Co. has introduced 10K and 20K Skypans to its expansive lighting arsenal. Skypans are the generally preferred tool for providing smooth and even light on extremely large

background cycs and TransLights. The 10K Skypan is 1.6 times brighter and also triples the spread of the 5K Skypan, while the 20K Skypan is four times as bright and has three times the spread of a standard 5K Skypan. Accessories include diffuser frame, skirt and safety screen.

Mole-Richardson Co., 937 N. Sycamore Ave., Hollywood, CA 90038, (213) 851-0111; web: www.mole.com.



### Century's New Angenieux HR Zoom

Century Precision Optics introduces the new Angenieux 7-81mm HR T2.4 lens. Featuring a genuine Super 16 design, the 7-81mm HR combines a horizontal field angle of 83 degrees with a zoom range of 11.5X. Ruggedly constructed and weighing only 3.9 lbs. (1.8 kg.), this versatile lens features clearly engraved numbering for focus (in feet and meters) and iris settings. Additionally, only the Angenieux 7-81mm HR features an interchangeable back element system allowing conversion between digital electronic cinematography and Super 16.

The Super 16 HR is available in either Arriflex PL, Arri bayonet or Aaton mounts, and focuses internally allowing compatibility with standard matte-boxes and accessories.

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### View Askew Lines Up its Sights

### by Eric Rudolph

Brothers instead of the twentysomething know-nothings that we are." This self-deprecating description is no longer an accurate summary of the young director's position in the film industry, however. A few short years ago, Smith was a Vancouver Film School dropout making ends meet as a clerk in a Quick Stop convenience store near his economically-depressed Jersey Shore hometown. Today, he is an artistic and financial success poised on the brink of full-scale Hollywood prominence.

The wildly enthusiastic reviews and solid business generated by Smith's latest writing/directing effort, Chasing Amy, have erased memories of the critical and commercial failure of Mallrats. Smith and producing partner Scott Mosier — who named their company View Askew — have a slate of projects in various stages of production, all of which are overseen from a ramshackle suite of offices located in the burgeoning town of Red Bank, New Jersey, some 50 miles south of Manhattan.

The duo will earn a prominent credit this Christmas as executive producers on Gus Van Sant's newest film, Good Will Hunting, which will be distributed by Miramax. Mosier explains, "Our role was really mostly in setting up the deal, bringing [Chasing Amy star] Ben Affleck's script for Good Will Hunting to

Miramax after it was put in turnaround by Castle Rock."

Kevin Smith's story has truly humble beginnings. While still in his early twenties, Smith sold his comic book collection and maxed out his credit cards to finance the \$27,000 needed for the principal photography of *Clerks* (1993), which was set and photographed in the very same convenience store where he had toiled. This idiosyncratic, black-and-white slice of lower-class Jersey Shore life scored major kudos at Sundance and instantly made Smith a hot Hollywood commodity.

Then, just as suddenly, Smith progressed from no-budget hero to \$6 million zero with the less-than-successful *Mallrats*. Universal produced the film as an R-rated teen comedy, but the picture was sent into wide release by the studio's art-house division, Gramercy Pictures. This odd match of subject matter and marketing didn't jell, and *Mallrats* quickly tanked.

Smith's comeback effort, Chasing Amy, was supposed to be a \$2 to \$3 million affair, but Miramax (with whom the director has a first-look deal) wanted some recognizable name actors for that price. "We agreed to disagree on the casting," Smith says. "I'd written the film with certain actors in mind, so we asked Miramax if we could go off and make it on our own, and gave them the option of picking it up if they liked it. They said 'Fine.'"

View Askew raised the initial \$250,000 for principal photography, and a first cut, on their own, and then hired barely-known lead thespians Joey Lauren Adams, Ben Affleck and Jason Lee. The film itself was shot mostly in the picturesque area immediately surrounding View Askew's Red Bank offices. "We shot almost everything right around here to save money," says Mosier. "It wasn't quite like running an extension cord from our offices to power a couple of lights, but it wasn't too far from that. We only had a generator for two sequences." (The

film's final budget was around \$1 million. A great deal of the additional money, provided by Miramax, went into the soundtrack.)

According to Mosier, shooting in Super 16 turned out to be a mixed blessing "due to a time crunch in making the 35mm blow-up. We were rushing to get to Sundance, so we were working at Christmas, and we hit a lot of lab overtime. But in the end it was the right way to do it, because we could shoot much more footage, and Kevin had his opportunity to do his customary long takes."

At press time, the film's gross receipts were closing in on the \$10 million mark. "Harvey [Weinstein, head of Miramax] has decided it will go to \$10 million, so we know it will," Smith says with a smile. "That's important, because it pretty much guarantees the shipping of 100,000 units on video."

The next self-penned script Smith is on deck to direct is called

"We're in the fortunate position of not having to wait for the next great script to slip through the mail slot."

- Scott Mosier

Dogma, which he describes as a darkly comedic road movie about "organized religion versus personal faith. It's not me thumbing my nose at the Catholic church for two hours, but it is satirical in tone. Dogma also has sci-fi elements and action." Casting for the leads has yet to be set, but Smith stalwarts Joey Lauren Adams, Jason Lee, Ben Affleck and Jason Mewes will all make appearances. The filmmakers plan to begin shooting the film this fall, and hope to debut it at next year's Cannes Film Festival. Miramax is on board as the picture's domestic distributor.

Currently budgeted at \$5-6 million, *Dogma* will be View Askew's

first widescreen offering. "We haven't decided if it will be anamorphic or Super 35," Smith says, "but it will have special effects and action. Because this film is more cinematic than the pretty much non-cinematic films we've done so far, we felt that the 2.35:1 ratio was justified."

As a screenwriter. Smith has received a lot of ink for his role in penning the upcoming Superman Reborn feature for producer Jon Peters, but that experience has not turned out guite the way he expected. "Tim Burton was hired to direct, and he decided he didn't like my script," Smith reveals. "Warner Bros. stood firm, so Burton handed my script over to Wesley Strick (Cape Fear, The Saint). From what I understand, Strick's first version was 50% his and 50% mine, and his second was 25% his and 75% mine. We'll see what happens with the credit when the Writer's Guild makes its decision."

An animated version of *Clerks* is near the top of the list of View Askew's non-feature projects. "There had been a lot of talk about a sequel to *Clerks*, but it would be too limiting and I wouldn't want to screw with the cult authenticity of the original," Smith says. "With animation, we can keep the tone the same but open it up and do anything, even nuke the Quick Stop. We'd like it to be a primetime show, like *The Simpsons*."

View Askew also continues to produce first features — in the \$40,000 to \$80,000 range — by other writers and directors: two have been completed, and another two are in the works, but none have been released.

The current staff of View Askew consists of Smith, Mosier, two or three other employees, and some interns and freelancers. The outfit plans to stay small, cherishing the freedom that low overhead allows. Mosier submits, "We're in the fortunate position of not having to wait for the next great script to slip through the mail slot. We keep doing Kevin's scripts and other projects he wants to do, which gives us the ability to look at scripts and say, 'No, that's not too good.' We can wait for material that we love, like *Good Will Hunting*, rather than always needing to have six scripts in development — three of which will probably never go past the paper stage." ◆











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### Books in Review

### by George Turner

### Fritz Lang: **Nature of the Beast**

by Patrick McGilligan St. Martin's Press, 580 pps., hardback, \$29.95

Warts-and-all biographies of celebrities who have shuffled off this mortal coil have been much in voque as of late, and German filmmaker Fritz Lang is the latest subject to be exhumed and dissected in such a fashion. Previous Lang biographies, including large-scale ones by Lotte Eisner and Frederick Ott, emphasize his genius as a filmmaker and reveal much about his moviemaking process, but carefully avoid dishing out much dirt on his life. During four years of research, however, Patrick McGilligan managed to unearth much scandal.

The juiciest episode arises early on in the book: Lang's young first wife died in her bathtub from a bullet in the chest on the same night she caught Lang in congress with his future wife. author Thea von Harbou. The official verdict was suicide — but was it? The author's sleuthing has turned up the name of this unfortunate lady, whose very existence was virtually erased once the scandal abated.

Other incidents are also vividly described: the time Lang almost burned the sublime Brigitte Helm to death during the production of *Metropolis* (1926); an apparently sadomasochistic relationship with Gerda Maurus, the beautiful Viennese "virgin star" of Spione / The Spy (1928) and Frau im Mond/Woman in the Moon (1929): involvements with the Nazis in Germany and the Communists in America; and combative episodes with a multitude of celebrities, including Spencer Tracy, Joan Bennett, Lilli Palmer and Marlene Dietrich. There are also references to Lang's occasionally contentious relationships with cinematographers, including ASC greats Joseph Ruttenberg. Stanley Cortez and others. (Curiously, the mercurial director became good friends with Milton Krasner, ASC, the

gentlest of men and a seemingly unlikely compatriot.)

It should be noted that some of these stories offer too many vagaries to be accepted as cold fact. A report that Lang had presided "in regal robes" over sadistic orgies is attributed to "a contemporary of the director's in Hollywood who spoke on condition that he not be identified." This individual begins his anecdote with the line, "I was told, and I trust the sources, that...

Even if one ignores such hearsay in favor of episodes backed up by solid evidence, ample accounts of Lang's wild lifestyle remain.

### Lois Weber

by Anthony Slide Greenwood Press, 192 pps... library binding, \$49.95

It's regrettable that Lois Weber (1871-1939), the first American-born female film director, is so little known. In point of fact, she was one of the real geniuses of the screen, who produced. directed, wrote, edited, acted in and sometimes cranked the camera for many of the best films of the silent era. The then-head of Universal, Carl Laemmle, recalled, "I would trust Miss Weber with any sum of money that she needed to make any picture that she wanted to make." In 1916. Weber was the highestpaid member of Universal's staff.

Subtitled "The Director Who Lost Her Way in History," this well-written, important volume in Greenwood's Study of Popular Culture series explains how Weber channeled her evangelistic zeal into film production. In 1908, as one of the first stage actresses to enter the film industry, she began writing, directing and acting in Gaumont's Chronophone pictures (accompanied by sound on disc). Two years later, she and her husband. Phillips Smalley, worked as a writing/directing/acting team for Edwin S. Porter, and later took charge of his Rex Studio as a Universal subsidiary.

Their Rex dramas — such as *Suspense*, and *A Cigarette*, *That's All* — were highly influential. Weber formed her own company in 1917 and continued to make fine, thought-provoking films until the "talkies" took over. Many dealt with such controversial subjects as birth control and capital punishment.

It has taken too long for this brilliant pioneer of the industry to be given the credit she so richly deserves.

### **Emeric Pressburger**

by Kevin MacDonald Faber and Faber, 487 pps., paper, \$17.95

Some of England's most distinguished films were produced by a team called The Archers, all of whose efforts bore the credit "Written, Produced and Directed by Michael Powell and Emeric Pressburger." Some of the better known Archers productions include Black Narcissus (1946), Stairway to Heaven (1946), The Red Shoes (1948) and Tales of Hoffman (1951). On each of these productions, Pressburger was the screenwriter, Powell functioned as the director, and both served as producers.

These longtime collaborators had very different personalities: Pressburger was a shy Hungarian Jew, while Powell was a buoyant, skirt-chasing Englishman. About all the two had in common was intelligence, skill and taste, and their success as a team was built upon conflict. That Pressburger was the quiet type is well illustrated by Rodney Ackland's description of him: "...the inscrutability of [his] flat Hungarian face is complete and would make the visage of Dr. Fu Manchu, Charlie Chan and the beloved po-face of Alan Ladd look, by comparison, like mirrors of tempestuous emotion "

There is a sizable body of literature on Powell, but very little has been written about Pressburger; his adventurous story unfolds amid the backdrop of a dozen European countries caught up in a maelstrom of war and peace. This excellent biography, written by Powell's grandson, fills a notable gap in film history while also shattering the duo's reputation as auteurists; attention is also paid to the great cinematographers, composers, visual effects artists and actors who helped give The Archers' films their unique flair.

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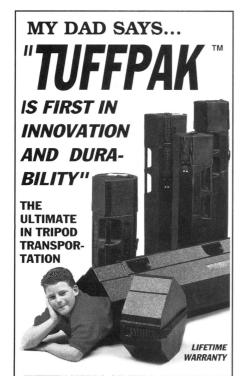
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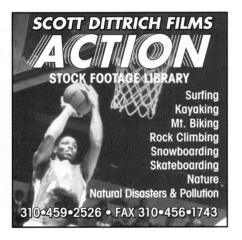
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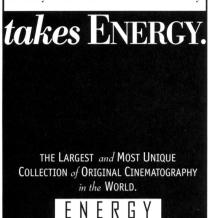


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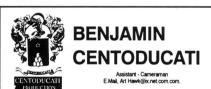


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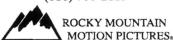
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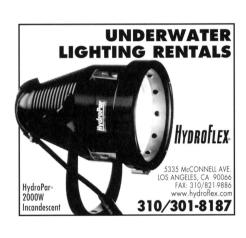


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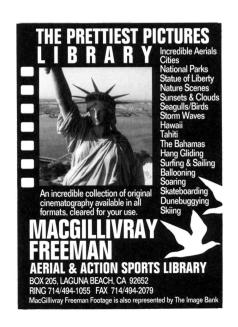


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### From the Clubhouse



ASC Members Honor Student Filmmakers

On June 6, ASC members Victor Kemper, Russell Carpenter, Woody Omens, Roger Deakins, Laszlo Kovacs, Allen Daviau and associate member Garrett Smith held an informal discussion in the ASC Clubhouse with the winners of this year's 24th Annual Student Academy Awards. Student attendees included Gold Medal winners Mark Millhone of New York University, who scored his award for the drama Christmas in New York; Robert Geller, also of NYU, who took top honors in the alternative category for Erosion; UCLA's Mark Dale Levine, who was honored for the animated film Unborn Baby Blues: and Chris Sheridan of Scottsdale Community College, recognized for his documentary Walk This Way.

Also present were Silver Medal recipients Charles R. Uy of New York's School of Visual Arts (*Waiting in the Wings*, drama); NYU's Andrea Clarke (*My Divorce*, alternative); and Stanford University documentarian Kim Roberts (*Miriam is Not Amused*). They were joined by Bronze Award recipient Chris Angel of USC and his cinematographers, Daniel Pfisterer and Bry Sanders (*Mr. October*, drama) and USC documentarian Jennifer Haskin-O'Reggio and her cin-

ematographers, Charles Swanson and Kennedy Wheatly (*The Mirror Lied*). The event's most well-traveled participant was Raymond Boy of the Academy of Media Arts in Cologne, Germany, who earned the Honorary Foreign Award for his film *An Ordinary Mission*.

### **ASC Golf Classic**

The ASC hosted its largestever Golf Classic on June 8 at the Camarillo Springs Golf Course, where some 160 golfers turned out to compete for trophies and prizes. Among the active members, ASC President Owen Roizman took home the First Place trophy and the prize for Low Gross, while Don Burgess earned top honors for Low Net. In the competition among associate members, Bill Bickford earned the prize for Low Gross and John Bickford snared the accolades for Low Net. In the guest ranks, Jim Venetas won the Low Gross prize, while Daniel Dutil earned Low Net honors.

Roizman had previously won the Low Gross category during the 1996 competition, and the Low Net category in 1986, '91 and '92.

On the women's side of the competition, Mona Roizman added more luster to the family's crowded mantel by taking the Low Gross category, while Kathy Anderson topped the field for Low Net.

Richard Glouner, ASC, champion of many past Classics, was also fêted as Golfer of the Decade for earning Low Net honors six times between 1984 and 1993.

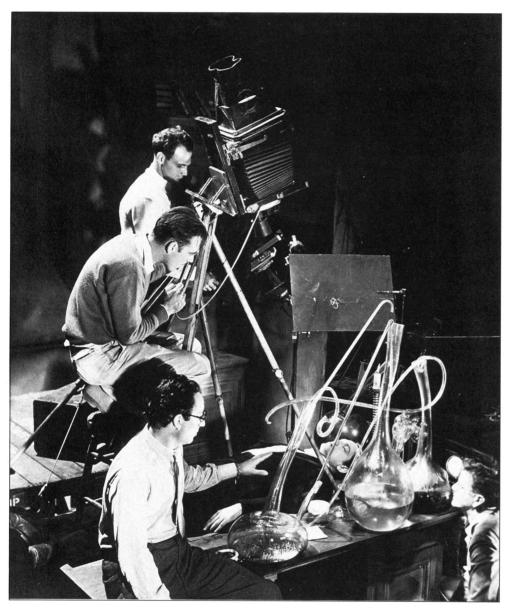
The tournament was cochaired by active members Howard Anderson and Glouner, who headed up a committee which included fellow members Roizman, Gerald Perry Finnerman, Ron Vargas, Brad Six and events coordinator Patty Armacost.





Far left: A group shot of the awardwinning student filmmakers and ASC members (front row); Victor Kemper, associate member Garrett Smith, Russell Carpenter, Woody Omens, Roger Deakins and Laszlo Kovacs. Near left from top: **ASC President** Owen Roizman presents Low Net winner Don Burgess with his trophy and crystal bowl; the Low Gross winners, Owen and Mona Roizman, display the tropies they earned in their respective divisions; (from left) Margot Glouner, Patty Armacost, Craig Chapman, Richard Glouner, ASC. **Howard Anderson** Jr., ASC and Red Chapman gather around the Golfer of the Decade trophy presented to Glouner by the ASC Golf Committee.





This photo by Earl Crowley shows one of the most memorable of all wrap shots in the making. It was taken in 1931 at Paramount West Coast Studio as the final scene of *Dr. Jekyll and Mr. Hyde* was being filmed. Some real talent is pictured here. From top to bottom are Frank Bjerring and Gordon Head, ace still photographers; Rouben Mamoulian, director; Fredric March, as Dr. Jekyll; and Karl Struss, ASC, cinematographer. The mo-

tion picture camera can barely be seen behind Struss. By a quirk of perspective, Struss looks small in this photo. Actually, he was almost certainly the tallest man on the lot.

Mamoulian, who seemed to have a better grasp on making "talkies" than any other director of that era, was very secretive about how the scenes showing March's changes from Jekyll to Hyde and back were done, and many as-

sumed that the director himself had devised these sequences. Struss, however, was very open about the matter; when I chatted with him at an ASC dinner meeting one night, he gave me the details.

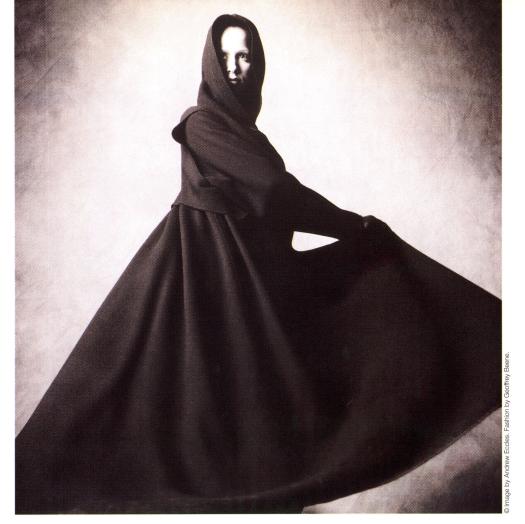
While working on the 1925 Ben Hur, Struss was given the task of showing the lepers being healed. To pull off the effect, he ordered up a special oblong filter which could change gradually from green to red. The gruesome makeup of the lepers was done in shades of red, which registered strongly on the black-and-white film when exposed through the green filter. The players were able to move naturally as the filter was moved to the red area and the makeup faded away.

Struss also used this technique on Jekyll and Hyde. Having read Robert Louis Stevenson's book, he argued that the transformation should end there. Mamoulian, however, wanted Hyde to become a Neanderthal man, so after the filter effect was completed, more makeup was added by Wally Westmore. In one sequence, the camera moved back and forth from March's face to his hands, with each area being made up while the other was on camera. The other scenes were completed with barely perceptible lap dissolves.

The filter technique and dissolving views were combined for the scene shown here, in which the dead Hyde is changing back into Jekyll. The ground-glass backs of the large-format still cameras aimed down toward March were used to mark the actor's position for each short take, so makeup could be applied and he could resume the identical position each time. The movie camera photographed the actor in profile at eye level, and the action was later printed in reverse.

The finished picture, still considered to be the definitive screen version of Stevenson's cautionary tale, earned a Best Actor Academy Award for March, as well as nominations for Best Cinematography and Best Adapted Screenplay.

— George Turner



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